

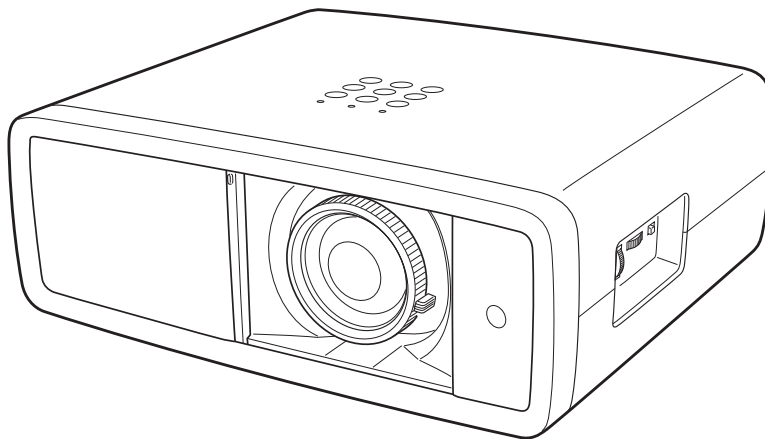
SERVICE MANUAL

Original Version

MODEL NO. **PLV-Z800**

U.S.A., Canada, Europe,
U.K. Asia, Africa, Brazil

Multimedia Projector



Chassis No. **MF4-Z80000**

NOTE: Match the Chassis No. on the rating sheet on the cabinet with the Chassis No. in the Service Manual.

If the Original Version Service Manual Chassis No. does not match the unites, additional Service Literature is required. You must refer to "Notices" to the Original Service Manual prior to servicing the unit.

PRODUCT CODE :

1 122 449 20 U.S.A., Canada
1 122 449 24 Brazil
1 122 450 20 Asia, Africa
1 122 450 22 H.K.
1 122 450 23 Europe, U.K


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Safety Instructions

SAFETY PRECAUTIONS


WARNING:

The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line () in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

- | | |
|--|---|
| 1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector. | DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED. |
| 2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis. | 4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside. |
| 3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc. | Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock. |

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark  in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

SERVICE PERSONNEL WARNING

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing.

Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages(15kV - 20kV) at its starts.

Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

Specifications

Technical Specifications

Projector Type	Multimedia Projector
Dimensions (W x H x D)	15.75" x 5.75" x 13.62" (400,0 mm x 146.0 mm x 346.0 mm) (not including raised portions)
Net Weight	16.5 lbs (7.5 kg)
LCD Panel System	0.74" wide TFT Active Matrix type, 3 panels
Panel Resolution	1920 x 1080 dots
Number of Pixels	6,220,800 (1920 x 1080 x 3 panels)
Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
High Definition TV Signal	480i, 480p, 575i, 575p, 720p, 1080i, and 1080p
Scanning Frequency	H-sync. 15 kHz – 80 kHz, V-sync. 50 Hz – 100 Hz
Projection Image size (Diagonal)	Adjustable from 40" to 300"
Projection Lens	F 2.0 – 3.05 lens with f 22.6 – 45.3 mm with manual zoom and focus
Throw Distance	3.9' – 60.4' (1.2 m – 18.4 m)
Projection Lamp	165 W
Video Input Jacks	RCA Type x 1 (Video), RCA Type x 3 (Y, Pb/Cb, Pr/Cr) x 2 and Mini DIN 4 pin x 1 (S-video)
Computer Input Terminal	mini D-sub 15 pin x 1
HDMI Input Terminals	HDMI terminal 19 pin x 2
Feet Adjustment	0° to 6.5°
Voltage and	AC 100 – 120 V (2.9 A Max. Ampere), 50/60 Hz (The U.S.A. and Canada)
Power Consumption	AC 200 – 240 V (1.5 A Max. Ampere), 50/60 Hz (Continental Europe and The U.K.)
Operating Temperature	41°F – 95°F (5°C – 35°C)
Storage Temperature	14°F – 140°F (-10°C – 60°C)
Remote Control	Power Source : AA or LR6 1.5 V ALKALINE Type x 2
	Operating Range : 16.4' (5 m)/±30°
	Dimensions : 2.13" x 1.04" x 6.81" (54 mm x 26.3 mm x 173mm)
	Net Weight : 3.4 oz (95.5 g) (not including batteries)
Accessories	Owner's Manual (CD-ROM)
	Quick Reference Guide
	AC Power Cord
	Remote Control and Batteries
	Air Blower

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.

Circuit Protections

This projector provides the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

Fuse

A fuse(F601) is located inside of the projector. When the POWER indicator is not lighting, the fuse may be opened. Check the fuse as following steps.

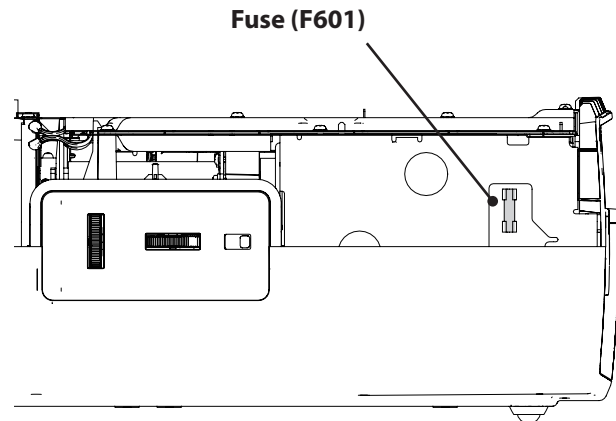
The fuse should be used with the following type;

Fuse Part No. : 323 024 3209
TYPE T5.0AH 250V FUSE
LITTEL FUSE INC. TYPE 215005

How to replace the fuse

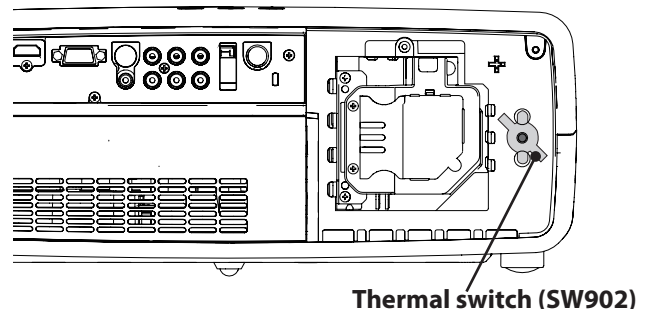
1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Remove the fuse from fuse holder on the Filter Board.

To install the fuse, take reversed step in the above.



Thermal switch

There is the thermal switch (SW902) inside of the projector to prevent the internal temperature rising abnormally. When the internal temperature reaches near 100°C, the thermal switch cuts off the drive signal to the lamp circuit automatically. The thermal switch is not reset to normal automatically, even if the internal temperature becomes normal. Reset the thermal switch following procedure. Check the resistance between terminals of thermal switch by using a tester. If it has high impedance, thermal switch may be open.

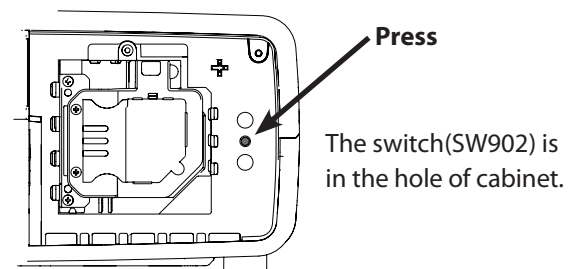


How to reset the thermal switch

1. Remove the Lamp cover following to "Mechanical Disassemblies".
2. Press the reset button on the thermal switch with a sharp-pointed tool.

CAUTION:

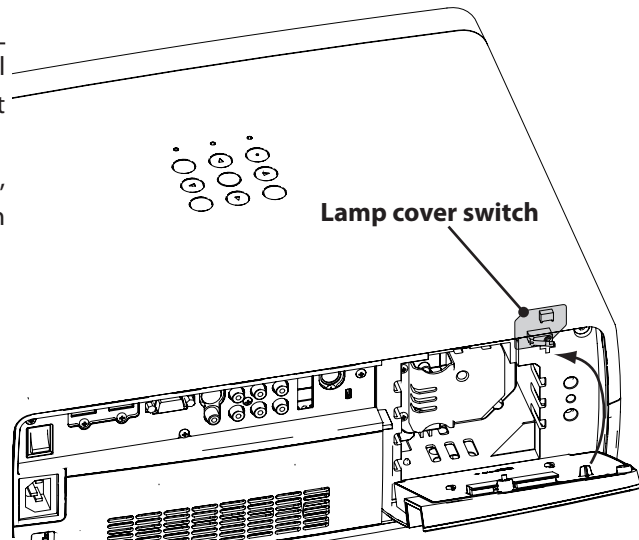
Before press the reset button, make sure that the AC cord must be disconnected from the AC outlet.



Lamp cover switch

The lamp cover switch (SW8803) cuts off the drive signal to the lamp circuit when the lamp cover is removed or not closed completely.

After opening the lamp cover for replacing the lamp unit, place the lamp cover correctly otherwise the projector can not turn on.



Door switches for automatic slide shutter

The projector provides 2 door switches against an accident of the automatic slide shutter.

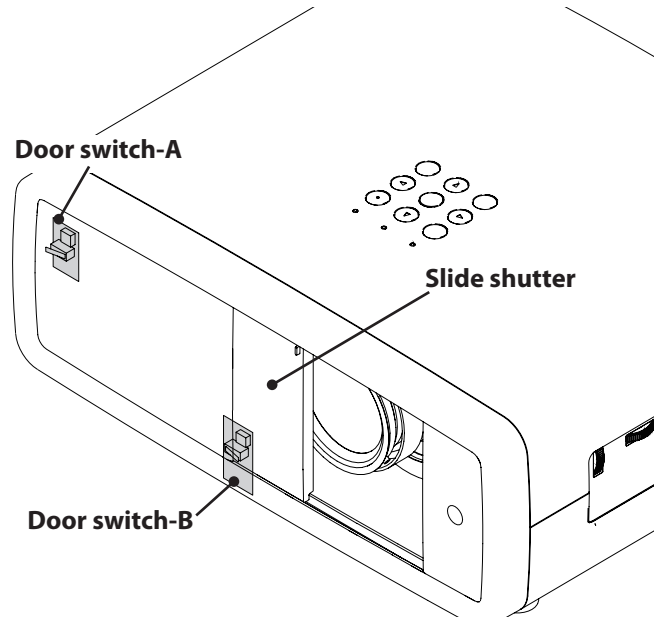
The door switch-A (SW8801) turns ON when the slide shutter is opened.

The door switch-B (SW8811) turns ON when the slide shutter is closed.

If the slide shutter stops half-open after turning on, the POWER indicator will blink orange and the projector goes to stand-by mode after cooling. In this case, press the POWER ON/STAND-BY button again.

If the slide shutter is closed during operation, the projector is automatically turned off for safety.

In this case, be sure to check the position of the slide shutter. After opening or closing the slide shutter manually, press the POWER ON/STAND-BY button and the projector turns on.



Warning temperature and power failure protection

The projector will be automatically turned off when the internal temperature of the projector is abnormally high, or the cooling fans stop spinning, or the power supplies in the projector are failed.

- If the WARNING indicator is flashing, it may detect the abnormal temperature inside the projector. Check the following possible causes and wait until the WARNING indicator stops flashing, and then try to turn on the projector.
- If the WARNING indicator lights red, it may defect the cooling fans or power supply circuits. Check fans operation and power supply lines referring to the chapter "Power supply & protection circuit" in the power Supply Lines section.

Possible causes

- Air filters are clogged with dust particles. Remove dust from the air filters.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35°C or 41 to 95°F)

Maintenance and Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

● Cleaning with air spray

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Clean up the LCD panel and polarized glass by using the air spray from the cabinet top opening.

Caution:

Use only the supplied air blower and nozzle to keep the projector from being out of order or damaged. We could not guarantee the malfunction or breakage caused by other tools.

Be very careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

● Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerably dirty and cannot be sufficiently cleaned by air spraying alone.

Be sure to readjust the optical system after performing disassembly cleaning.

1. Remove the cabinet top and main units following to "Mechanical Disassemblies".
2. Remove the optical base top following to "Optical Unit Disassemblies". If the LCD panel needs cleaning, remove the LCD panel unit following to "LCD panel/Prism ass'y replacement".
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

Caution:

The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction.

Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.

Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

Cleaning the RGB panels

Blemishes such as dust and dirt on the internal optical components of the projector tend to degrade the brightness of the screen and are likely to appear as a shadow on the screen, which can lead to deterioration of image quality.

This projector is equipped with the RGB panel cleaning holes on the bottom for cleaning of the internal parts (such as optical components) of the projector. When you use the projector for a lengthy period of time or a shadow of dust appears on the projected screen, clean the inside of the projector.

Using the supplied air blower and with the Cleaning function in the Setting Menu, you can remove the dusts from the projector.

✓Note:

- Dust might not be removed completely with these steps. In that case, contact the dealer where you purchased the projector or service center.



CAUTION



PROHIBITED

CAUTION IN USING THE AIR BLOWER AND THE NOZZLE

- Turn the projector over when using the blower.
- Use only the supplied air blower and nozzle to keep the projector from being out of order or damaged. We could not guarantee the malfunction or breakage caused by other tools.
- Never use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant.
- Put the projector on a soft cloth to prevent scratching the surface.
- Open the hole cover only when you clean the inside of the projector.
- Do not look into the holes. A strong light could damage your eyes. (Do not look into the Air intake vent and Exhaust vent, either.)
- Use the blower and nozzle only to clean the projector. Do not attempt to use them for other purposes. Do not use the blower and nozzle against persons (particularly to eyes, mouth or ear, and so on). Be especially careful to ensure that children do not put the blower and nozzle into their mouth and swallow them.
- Do not attempt to pull the nozzle out of the blower. If the nozzle happened to be pulled out, put it back into the blower immediately.
- Do not use the blower supplied with this projector (model: Z700) to clean the other models: Z4, Z3, and Z1X.

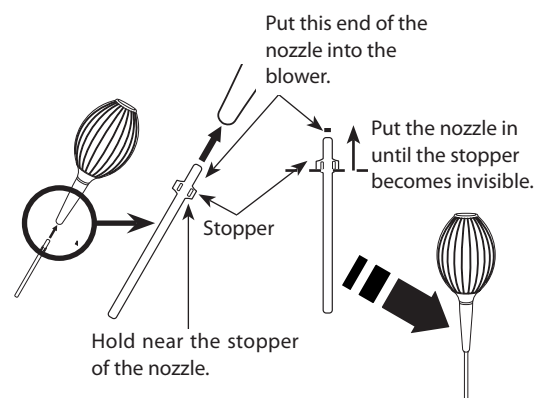
In the unlikely event that something goes wrong (smoke, a strange sound, an abnormal odor, and such) while you are cleaning, turn off and unplug the projector immediately, then call the dealer where you purchased the projector or service center.

If the nozzle is pulled out

The nozzle has the stopper. Put the stopper-side of the nozzle into the blower. Put the nozzle firmly into the blower until the stopper becomes invisible.

When putting the nozzle into the blower, hold near the stopper so that it will not break.

Make sure not to attempt to pull the nozzle out of the blower.

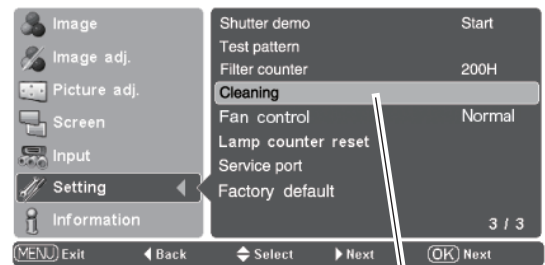


Clean by using the Cleaning function in the Setting Menu

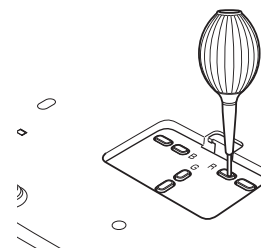
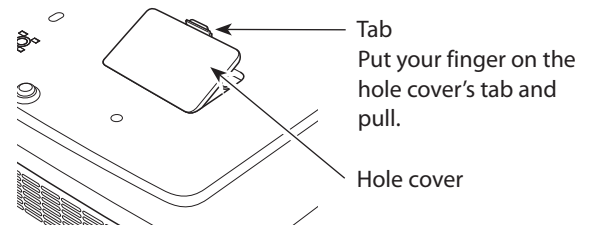
- 1** Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ► or OK buttons to access the submenu items.
- 2** Select Cleaning and then press the OK or Point ► buttons. The screen is blacked out temporarily.
- 3** Turn the projector over. Put your finger on hole over's tab and pull to open the hole cover.
- 4** Put the blower's nozzle into a hole.
- 5** Blow air into the projector with the blower watching the position of the dust from the screen.
- 6** When cleaning is done, pull the blower out of the hole and replace the hole cover.
- 7** Set the projector back into the right position, then press any button on the top control or on remote control to quit the Cleaning function.

* Do not open the hole cover except when you clean the inside of the projector to prevent foreign matters from getting into the projector. If it is open especially while operating the projector, the optical parts could damage.

Cleaning



Select Cleaning in the Setting Menu.

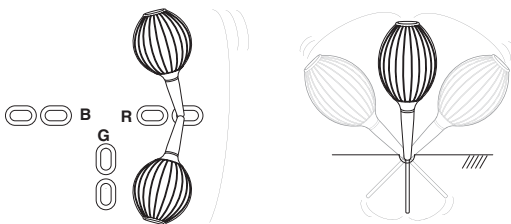


The nozzle will go no further than a certain point when it is put into the hole. Do not attempt to push the nozzle further in, or it could break and be stuck inside of the projector.

Which hole to put the nozzle in?

When you look at the screen:

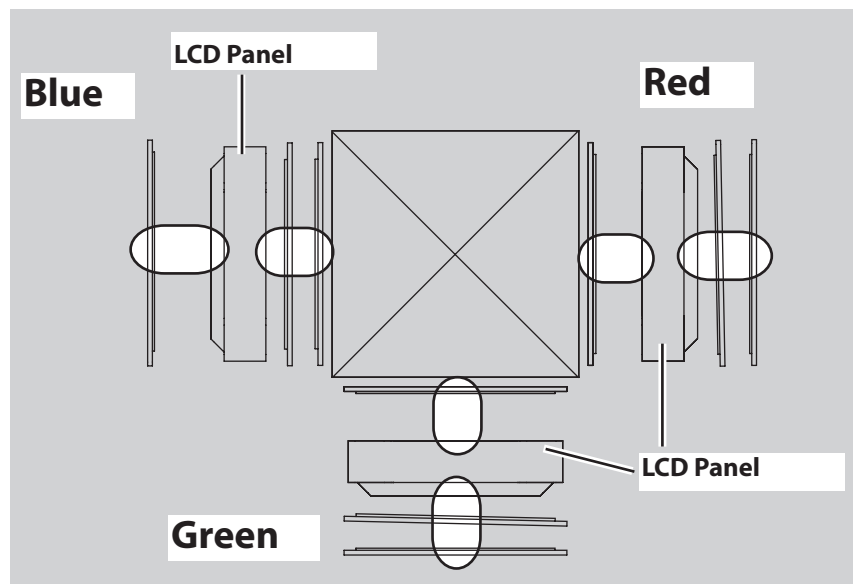
- When a red spot (dust) is showed up, put the nozzle into the R panel cleaning holes.
- When a green spot (dust) is showed up, put the nozzle into the G panel cleaning holes.
- When a blue spot (dust) is showed up, put the nozzle into the B panel cleaning holes.



Wave the nozzle back and forth inside of the projector.
(Do not attempt to bend the nozzle.)



Use only the supplied blower and nozzle.
Do not use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant. We could not guarantee the malfunction of breakage by using other tools.



BOTTOM VIEW

Warning Indicator

The WARNING indicator shows the state of the function that protects the projector. Check the state of the WARNING indicator and the POWER indicator to take proper maintenance.

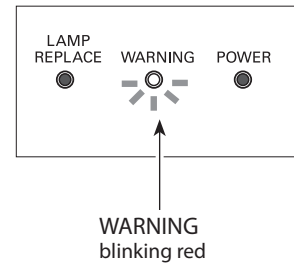
The projector is shut down and the WARNING indicator is blinking red.

When the temperature inside the projector reaches a certain level, the projector is automatically shut down to protect its inside. The POWER indicator is blinking while the projector is being cooled down. When the projector has cooled down sufficiently (to its normal operating temperature), it can be turned on again by pressing the POWER ON/STAND-BY button.

✓Note:

- The WARNING indicator continues to blink even after the temperature inside the projector returns to normal. When the projector is turned on again, the WARNING indicator stops blinking.

TOP CONTROL



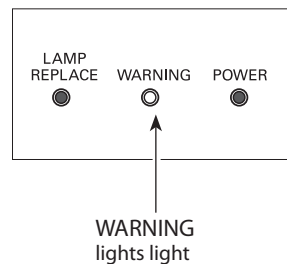
Then check the items below.

- Did you provide appropriate space for the projector to be ventilated? Check the installing condition to see if ventilation slots are not blocked.
- Has the projector been installed near an Air-Conditioning/Heating Duct or Vent? Move the installation of the projector away from the duct or vent.
- Is the air filter clean? Clean the air filter periodically or replace it with a new one.

The projector is shut down and the WARNING indicator lights red.

When the projector detects an abnormal condition, it is automatically shut down to protect the inside of the projector and the WARNING indicator lights red. In this case, unplug the AC power cord and plug it, and then turn on the projector once again to verify operation. If the projector cannot be turned on and the WARNING indicator lights red, unplug the AC power cord and contact the service station.

TOP CONTROL



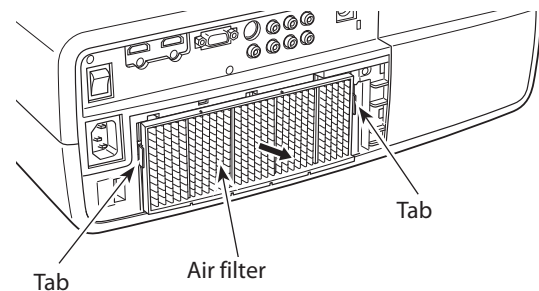
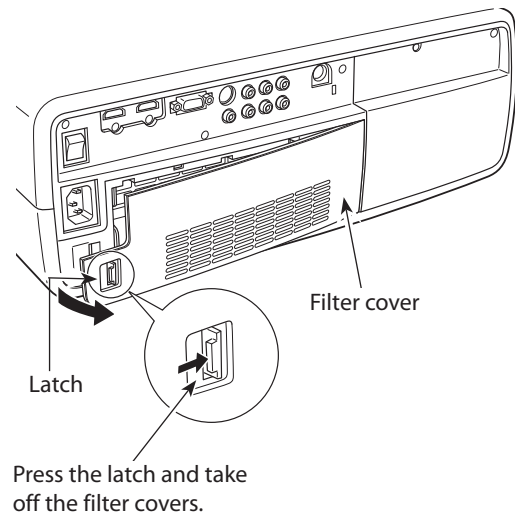
CAUTION

DO NOT LEAVE PROJECTOR WITH AC POWER CORD CONNECTED UNDER AN ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.

Cleaning the Air Filters

The air filters prevent dust from accumulating on the surface of the optical elements inside the projector. Should the air filters become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in a buildup of internal heat and adversely affect the life of the projector. Clean the air filters by following the steps below.

- 1** Press the latch and release it. Take off the filter cover.
- 2** Pull out the air filter.
When taking out the air filter, put your fingers on the air filter's tabs and pull. Do not try to pull the delicate filter part.
- 3** Remove dust and dirt with a soft brush or a vacuum cleaner. Be careful not to damage the air filter and do not clean it with water. When the air filter gets dusty and dirty, replace it with a new one. For ordering the replacement filter, contact your sales dealer.
- 4** Put the air filter back into the position. Do not push the delicate filter part. Make sure that the air filter is properly and fully inserted.
- 5** Close the filter cover.
- 6** **Reset the filter counter .**



RECOMMENDATION

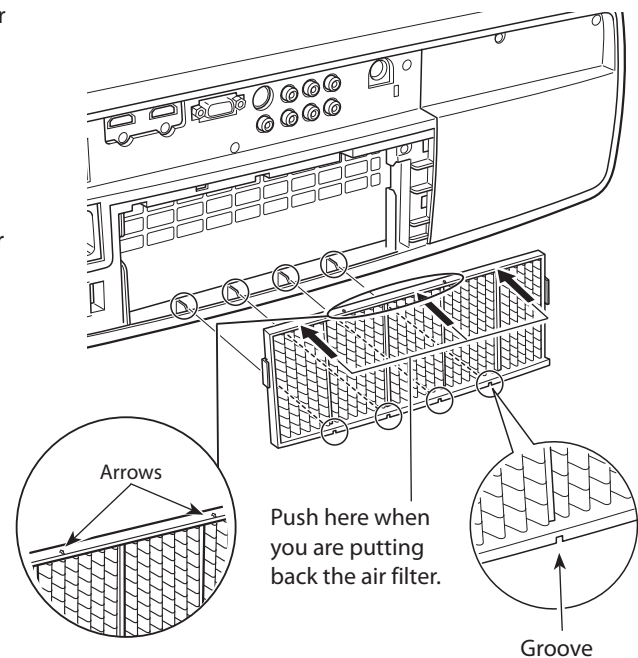
We recommend avoiding dusty/smoky environments when operating the projector. Usage in these environment may cause a poor image quality.

When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image.

When the symptoms above are noticed, contact your authorized dealer or service station for proper cleaning.

CAUTION

Do not operate the projector with the air filters removed. Dust may accumulate on the LCD panel degrading the picture quality of the projection mirror. Do not put anything into the air intake vents. It may result in malfunction of the projector.



When putting back the air filter, make sure that the arrows on the filter are facing towards the projector.

Resetting the Filter Counter

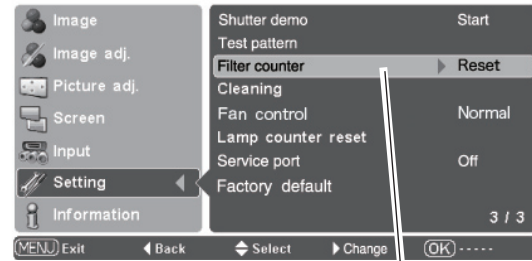
Be sure to reset the Filter counter after cleaning or replacing the air filter.

- 1 Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ► or OK buttons to access the submenu items.
- 2 Select Filter counter and then use the Point ► button to select [Reset] and press the OK button. "Filter counter reset?" appears. Select [Yes] and then press the OK button.
- 3 Another confirmation dialog box appears, and select [Yes] to reset the Filter counter.

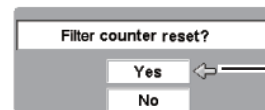
✓ **Note:**

- Do not reset the Filter counter without cleaning or replacing the air filter. Be sure to reset the Filter counter only after cleaning or replacing the air filter.

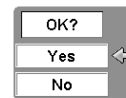
Filter counter



Select Filter counter and use the Point ► button to select [Reset] and press the OK button. "Filter counter reset?" appears.



Select [Yes] and press the OK button, then another confirmation box appears.



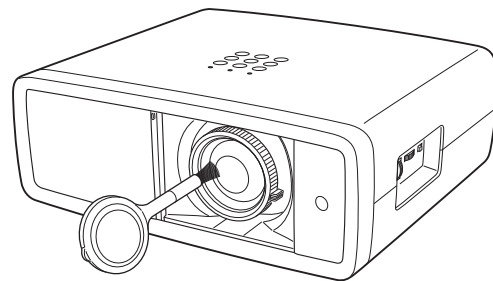
Select [Yes] again to reset the lamp counter.

Cleaning the Projection Lens

Unplug the AC power cord before cleaning.

Gently wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use a lens cleaning paper or a commercially available air blower to clean the lens. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the lens.

When the projector is not in use, make sure that the automatic slide shutter is closed.

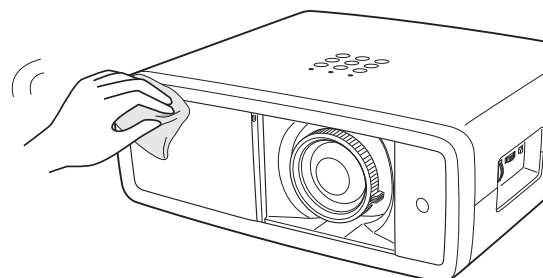


Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a dry soft cloth. When the cabinet is heavily soiled, apply a small amount of mild detergent and finish with a dry soft cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the cabinet.

When the projector is not in use, put it in an appropriate carrying case to protect it from dust and scratches.

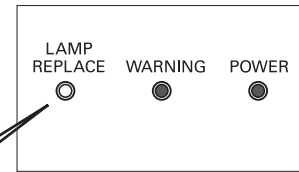


Lamp Replacement

When the projection lamp of this projector reaches its end of life, the LAMP REPLACE indicator emits yellow light. If this indicator lights yellow, replace the lamp with a new one promptly. The time when the LAMP REPLACE indicator should light is depending on the lamp mode.

This indicator lights yellow when the projection lamp reaches its end of life.

Top Control



CAUTION

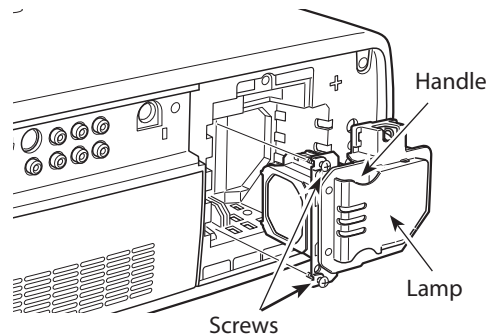
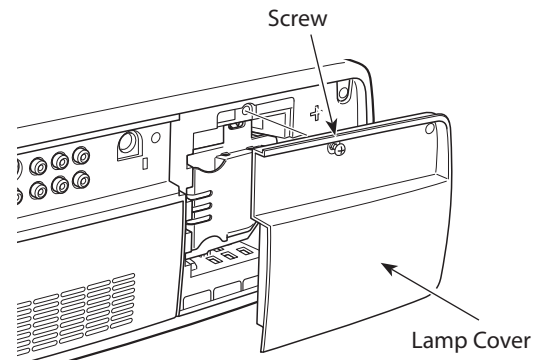
Allow the projector to cool, for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.

CAUTION

For continued safety, replace the lamp with the same type lamp. Do not drop the lamp or touch the glass bulb! The glass can shatter and may cause injury.

Follow these steps to replace the lamp.

- 1 Turn off the projector and unplug the AC power cord. Let the projector cool for at least 45 minutes.
- 2 Loosen the screw that secures the lamp cover, and then open the lamp cover.
- 3 Loosen the two (2) screws that secure the lamp. Pull out the lamp by using the built in handle.
- 4 Replace the lamp with a new one and secure it with the two (2) screws. Make sure that the lamp is set properly. Put the lamp cover back and secure it with the screw.
- 5 Connect the AC power cord to the projector and turn on the projector.
- 6 **Reset the Lamp replacement counter.**



ORDER REPLACEMENT LAMP

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector:** **PLV-Z800**
- **Replacement Lamp Type No.:** **POA-LMP135**
(Service Parts No. 610 344 5120)

Lamp Replacement Counter

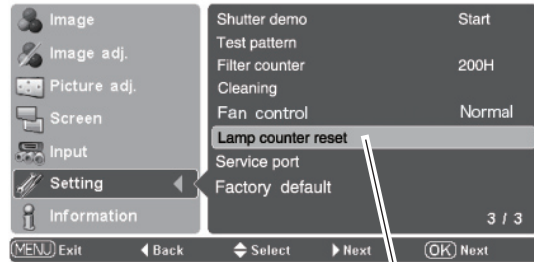
Be sure to reset the lamp replacement counter after the lamp is replaced. When the lamp replacement counter is reset, the LAMP REPLACE indicator stops lighting.

- 1 Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ► or OK buttons to access the submenu items.
- 2 Select Lamp counter reset and then press the OK or Point ► buttons. "Lamp replacement counter reset?" appears. Select [Yes] and then press the OK button.
- 3 Another confirmation dialog box appears, and select [Yes] to reset the Lamp replacement counter.

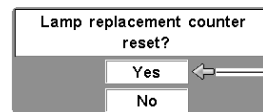
✓ **Note:**

- Do not reset the Lamp replacement counter without implementing lamp replacement. Be sure to reset the Lamp replacement counter only after replacing the lamp.

Lamp counter reset



Select Lamp counter reset and press the OK or Point ► buttons. "Lamp replacement counter reset?" appears.



Select [Yes] and press the OK button, then another confirmation box appears.



Select [Yes] again to reset the lamp counter.



LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

- Lamp lifetime may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same lifetime for each lamp. Some lamps may fail or terminate their lifetime in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down.
(Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.

If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

How to check lamp used time

The LAMP REPLACE indicator will light when the total lamp used time reaches 3,000 hours. This is to indicate that lamp replacement is required.

The total lamp used time is calculated by using the below expression;

$$\text{Total lamp used time} = T_{\text{eco}} + T_{\text{normal}} \times (1.5)$$

T_{eco} : used time in Eco mode

T_{normal} : used time in Normal/Auto1/Auto2 mode

You can check the lamp counter following procedure.

- 1 Press and hold the **POWER ON/STAND-BY** button on the projector or the remote control unit for more than 20 seconds.
- 2 The projector used time and lamp used time will be displayed on the screen briefly.

You can also check "Lamp Time" in the "Information Menu". This value is actual lamp used time.

$$\text{"Lamp Time"} = T_{\text{eco}} + T_{\text{normal}}$$


Lamp Counter Display

Counter	
Projector	475H
Lamp	
Normal	100H
Eco	375H
Corresponding value	525H

Projector used time

Total lamp used time

Information Menu

<ul style="list-style-type: none"> Image Image adj Picture adj Screen Input Setting Information 	Input	HDMI 1
	Signal	D-1080p
	H-sync freq.	26.9 KHz
	V-sync freq.	23.9 Hz
	Deep color	12 bit
	Image	Creative cinema
	Screen	Full
	Lamp status	
	Lamp time	475 H
	Filter time	100 H

Total lamp used time (actual)

Service Port

Switch of standby mode

Service port "Off" : Super standby mode

Service port "On" : Normal standby mode

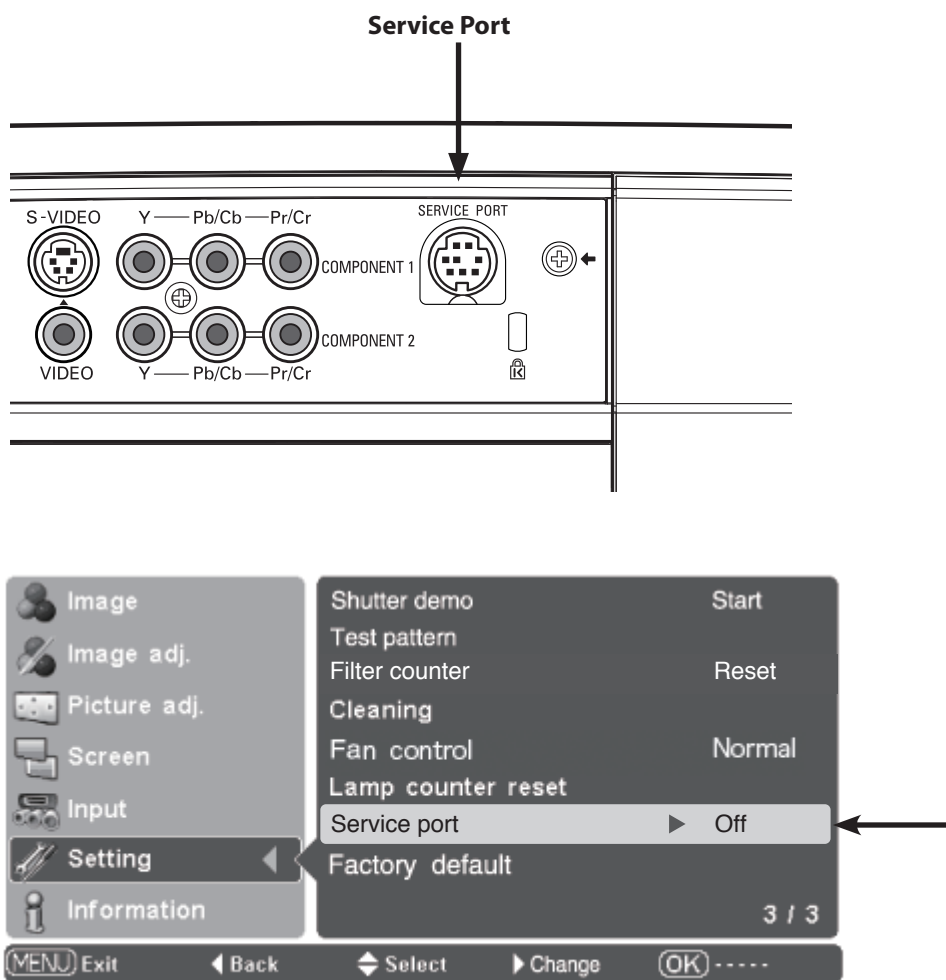
The service port is factory default set **"OFF"**.

When the service port is used, the item of the service port of the setting menu is changed to **"ON"**.

(The service port cannot be used in the state of **"OFF"**.)

Change to **"OFF"** after servicing ends.

(Power consumption when standing by increases in the state of **"ON"**.)





Mechanical disassemblies

Disassemble should be made following procedures in numerical order.
Following steps show the basic procedures, therefore unnecessary step may be ignored.

Caution:

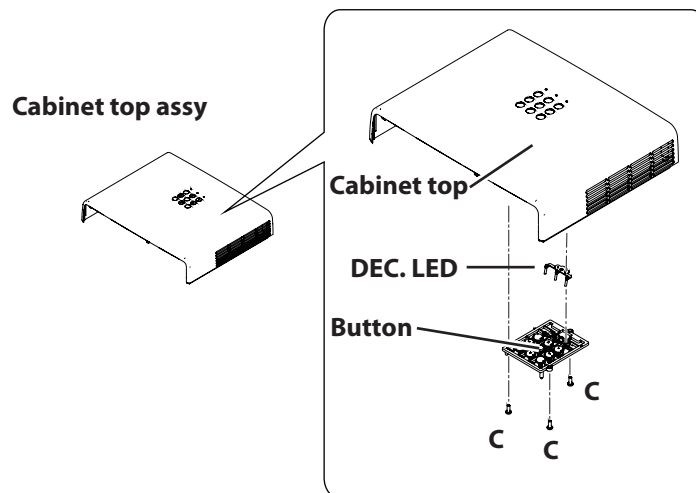
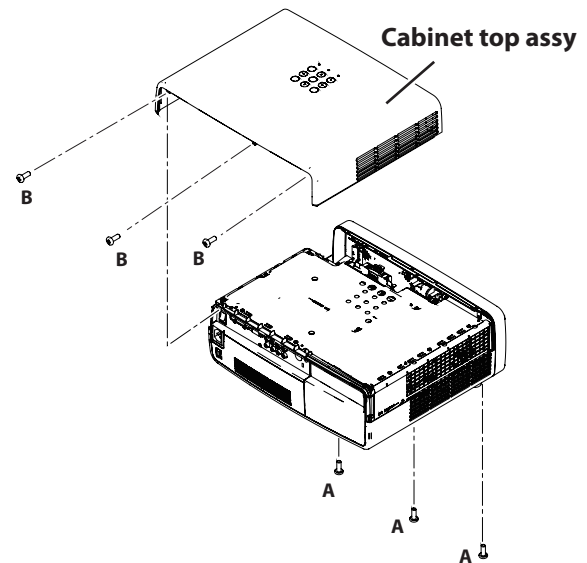
The parts and screws should be placed exactly the same position as the original otherwise it may cause lose of performance and product safety.

The wiring method of the leads and ferrite cores should be returned exactly the same state as the original, otherwise it may cause lose of performance and product safety.

Screws Expression (Type Diameter x Length) mm	
T type	M Type
Tapping screw	Machine screw
	

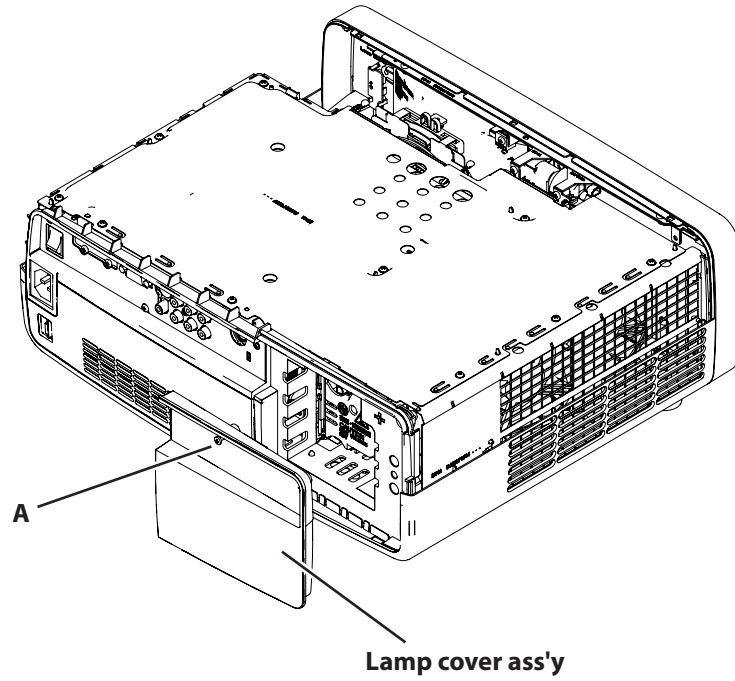
1 Cabinet top ass'y removal.

1. Remove the 3 screws-A(M3x10) from the bottom side.
2. Remove the 3 screws-B(M3x8) and remove the Cabinet top ass'y.
3. Remove the 3 screws-C(T2.6x6), remove the Button and DEC. LED.



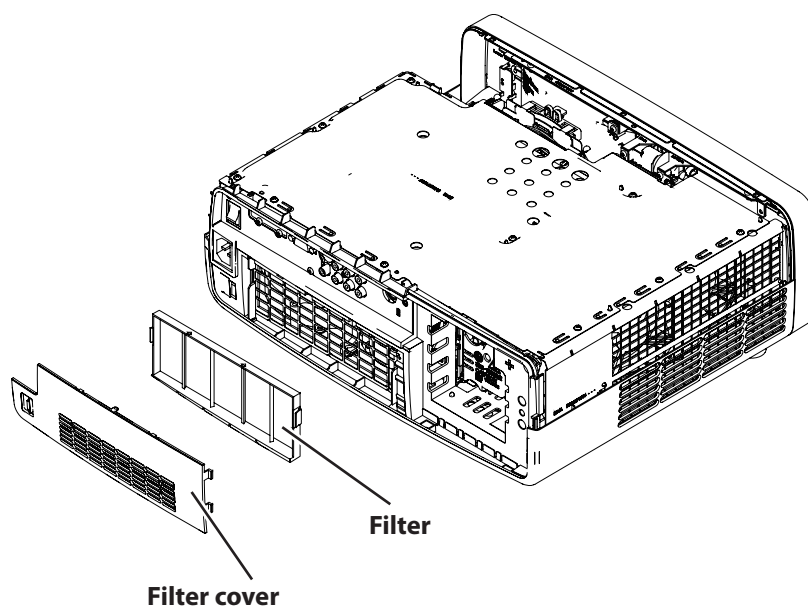
2 Lamp cover ass'y removal.

1. Loosen the screw-A and remove the Lamp cover ass'y.



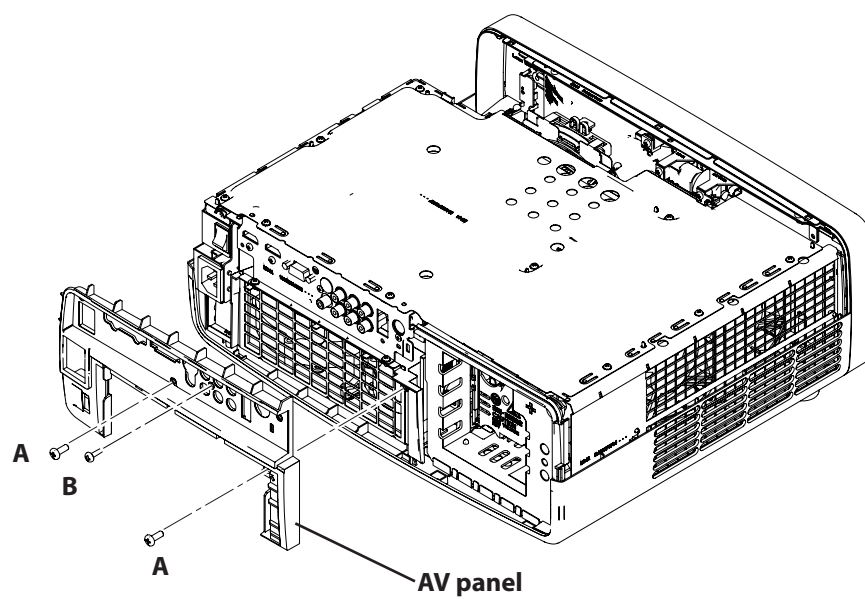
3 Filter removal.

1. Remove the Filter cover and Filter.



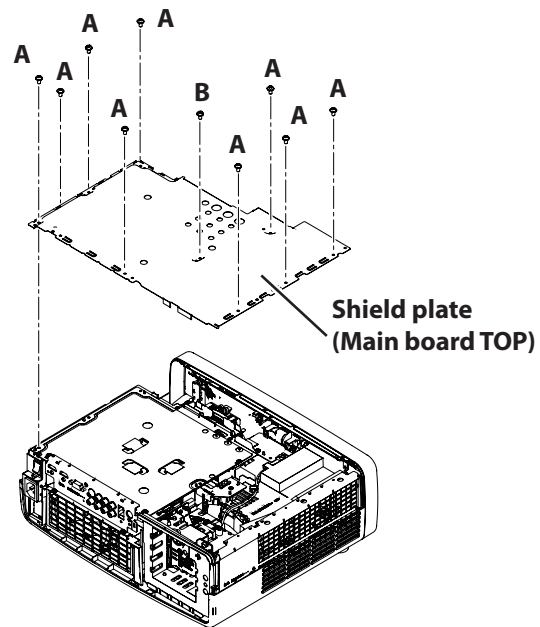
4 AV panel removal.

1. Remove the 2 screws-A(M3x8), remove the screw-B(T3x8) and remove the AV panel.



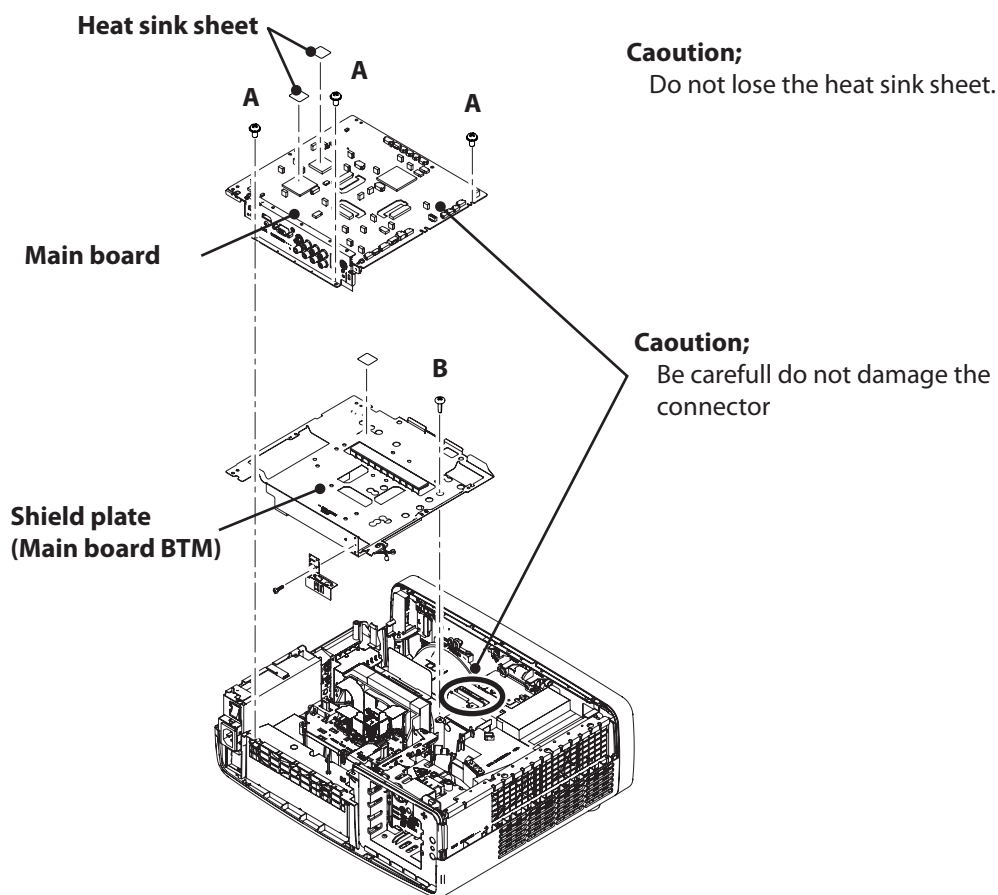
5 Main PWB shield plata(top) removal.

1. Remove the 9 screws-A(M3x6), remove the screw-B(M3x10) and remove the Shield plate (Main board-top) .



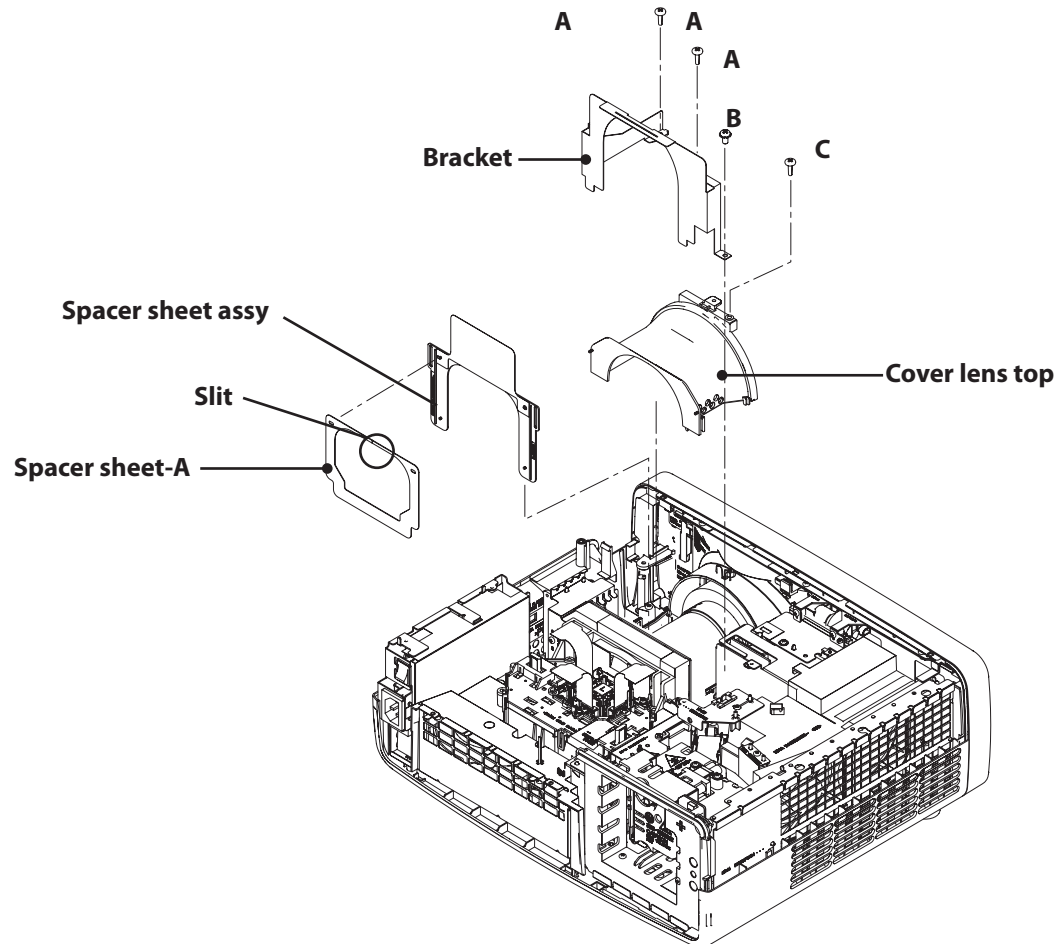
6 Main PWB removal.

1. Remove the 3 screws-A (M3x6), remove the Main board and remove 1 screw-B(T3x8) and the Shield plate (Main board-BTM).

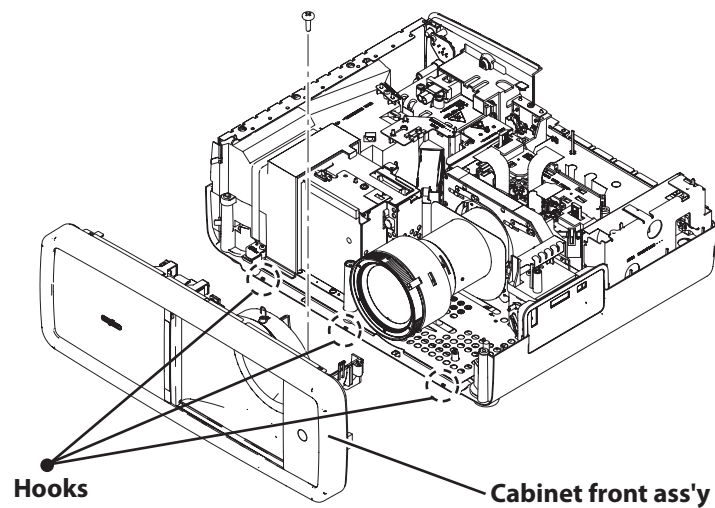


7 Cover lens top removal.

1. Remove the 3 screws-A (T3x8), screw-B (M3x6) and remove the Bracket.
2. Remove the screw-C (T3x8) and remove the Cover lens top upward.
3. Remove the Spacer sheet assy and remove the Spacer sheet-A.

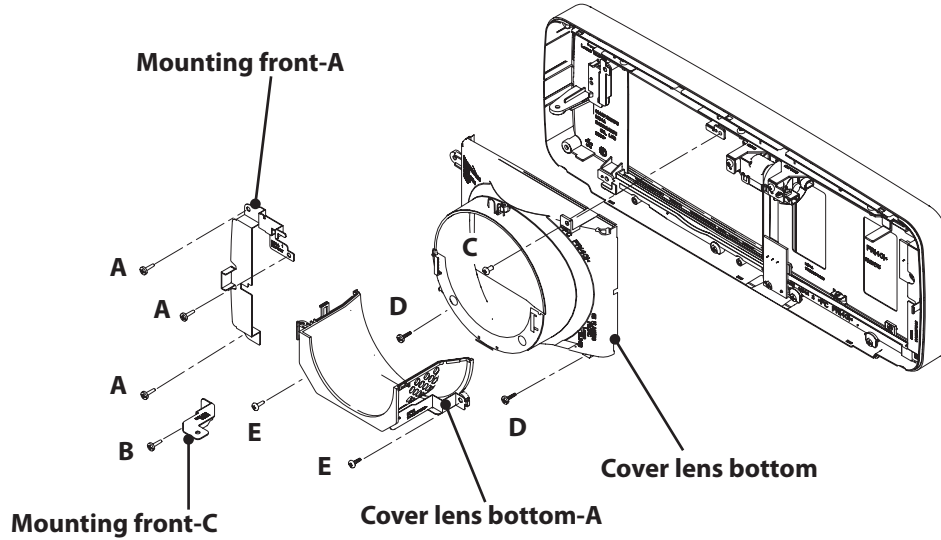
**8 Cabinet front ass'y removal.**

1. Remove the screw (T3x8) and remove the Cabinet front ass'y forward.



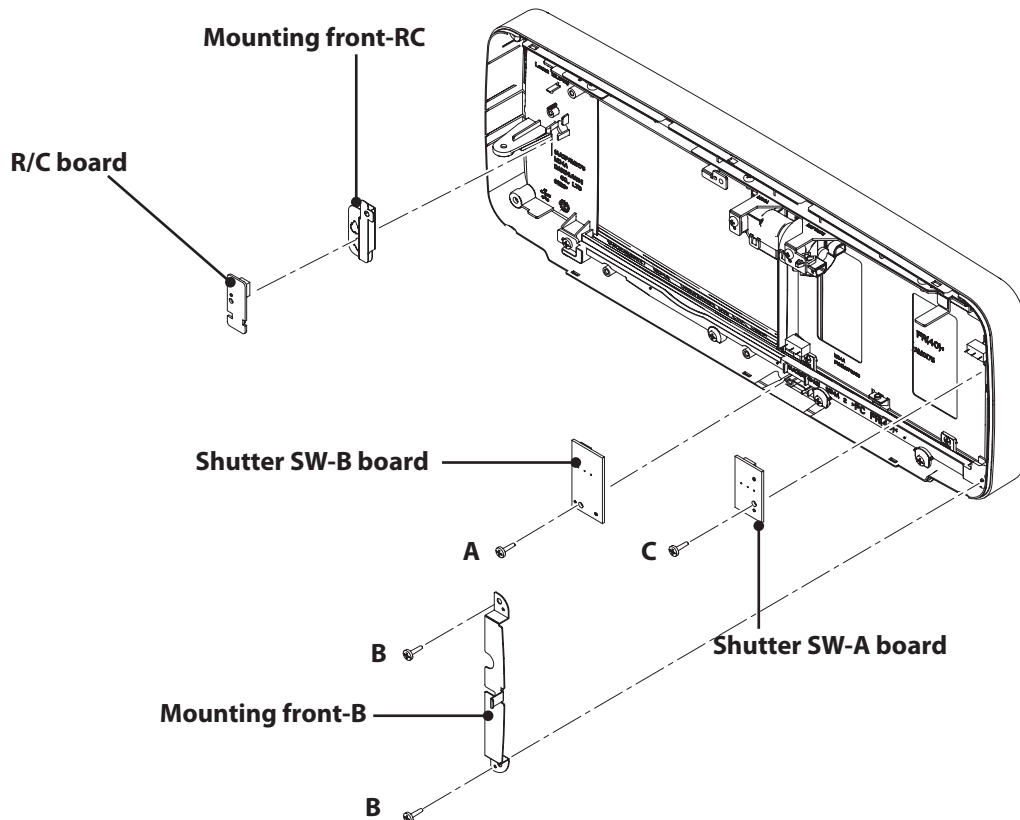
9-1 Cabinet front ass'y disassembly.

1. Remove the 3 screws-A(T3x10) and remove the Mounting front-a.
2. Remove the screw-B(T3x10) and remove the Mounting front-C.
3. Remove the screw-C(M3x6), remove the 2 screws-D(T3x10) and remove the Cover lens bottom assy.
4. Remove the 2 screws-E(T3x8) and remove the Cover lens bottom-a.



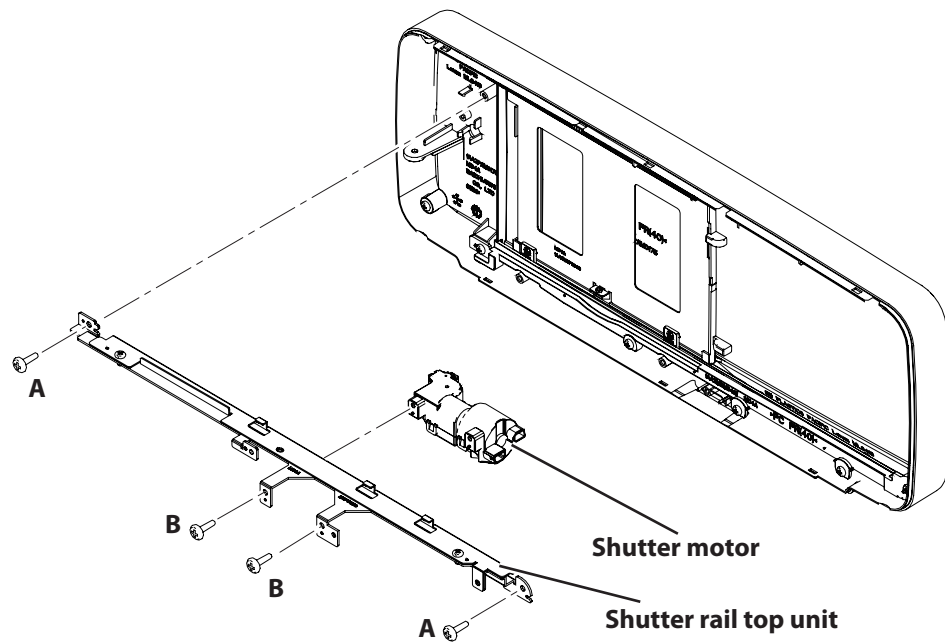
9-2 Cabinet front ass'y disassembly.

1. Unhook and remove the R/C board, remove the Mounting front RC.
2. Remove the screw-A(T3x10) and remove the Shutter SW-B board.
3. Remove the 2 screws-B(T3x10) and remove the Mounting front-B.
4. Remove the screw-C(T3x10) and remove the Shutter SW-A board.

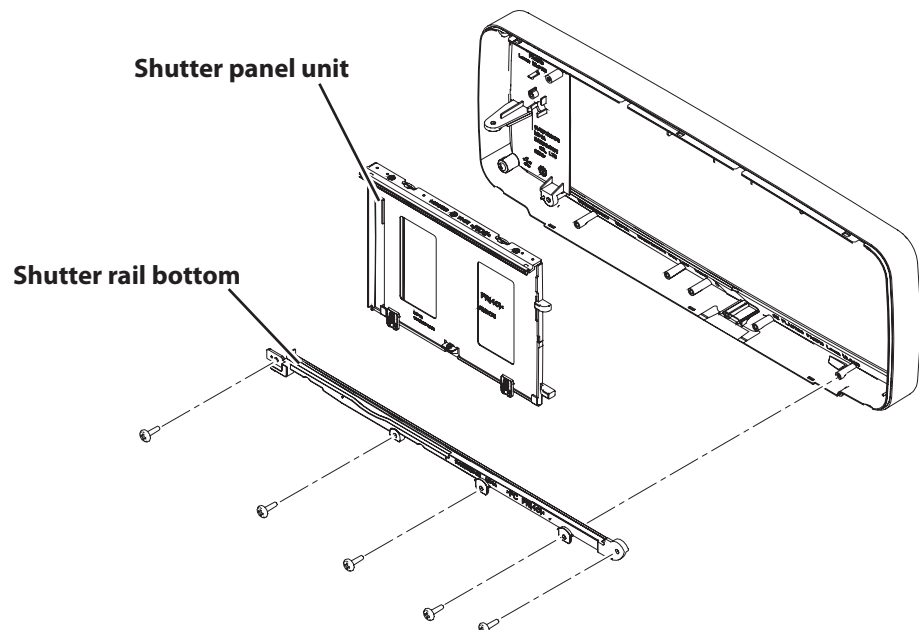


9-3 Cabinet front ass'y disassembly.

1. Remove the 2 screws-A (T3x10) and remove Shutter rail top unit.
2. Remove the 2 screws-B (T3x10) and remove the Shutter motor.

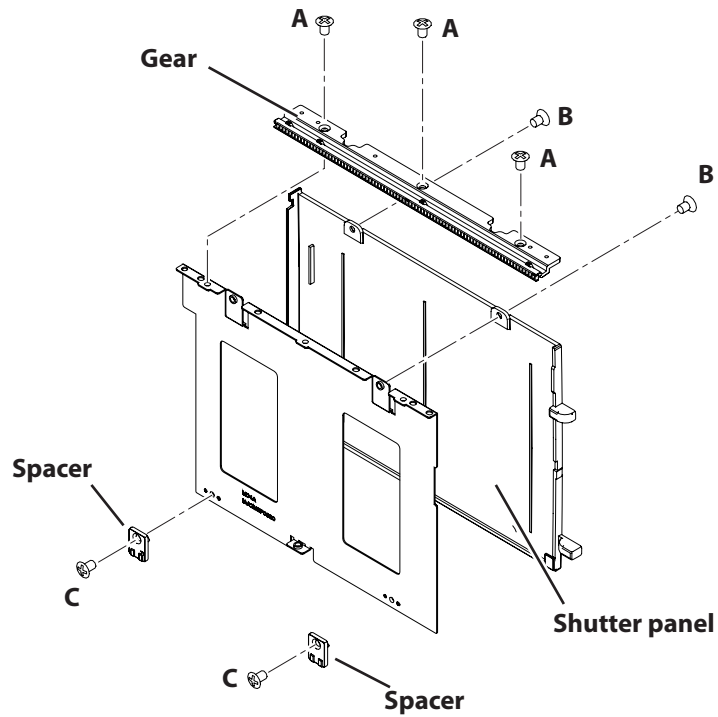
**9-4 Cabinet front ass'y disassembly.**

1. Remove the 5 screws (T3x10) and remove the Shutter rail bottom.
2. Remove the Shutter panel unit.



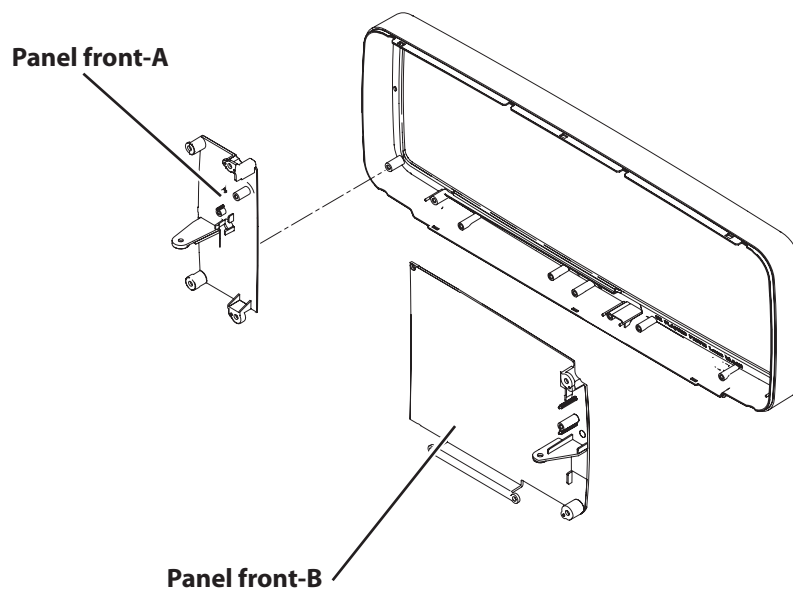
9-5 Cabinet front ass'y disassembly.

1. Remove the 3 screws-A (M2.6x4) and remove the Gear.
2. Remove the 2 screws-B (M2.6x4) and remove the Shutter panel.
3. Remove the 2 screws-C (M2.6x4) and remove the 2 spacers.



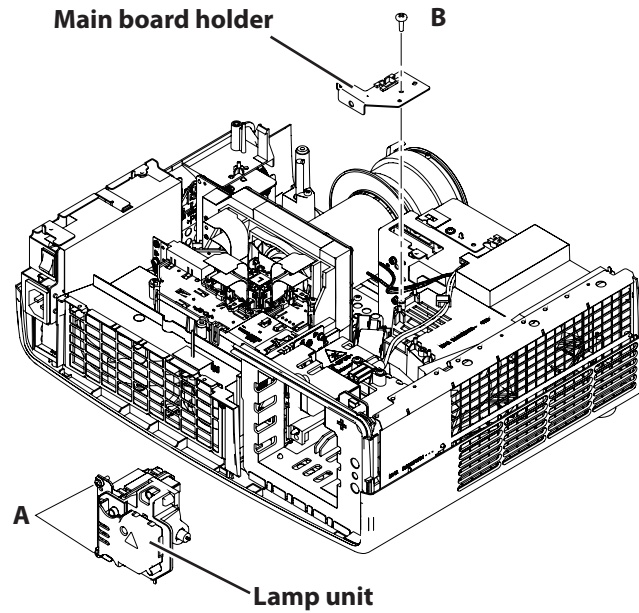
9-6 Cabinet front ass'y disassembly.

1. Remove the Panel front-A.
2. Remove the Panel front-B.

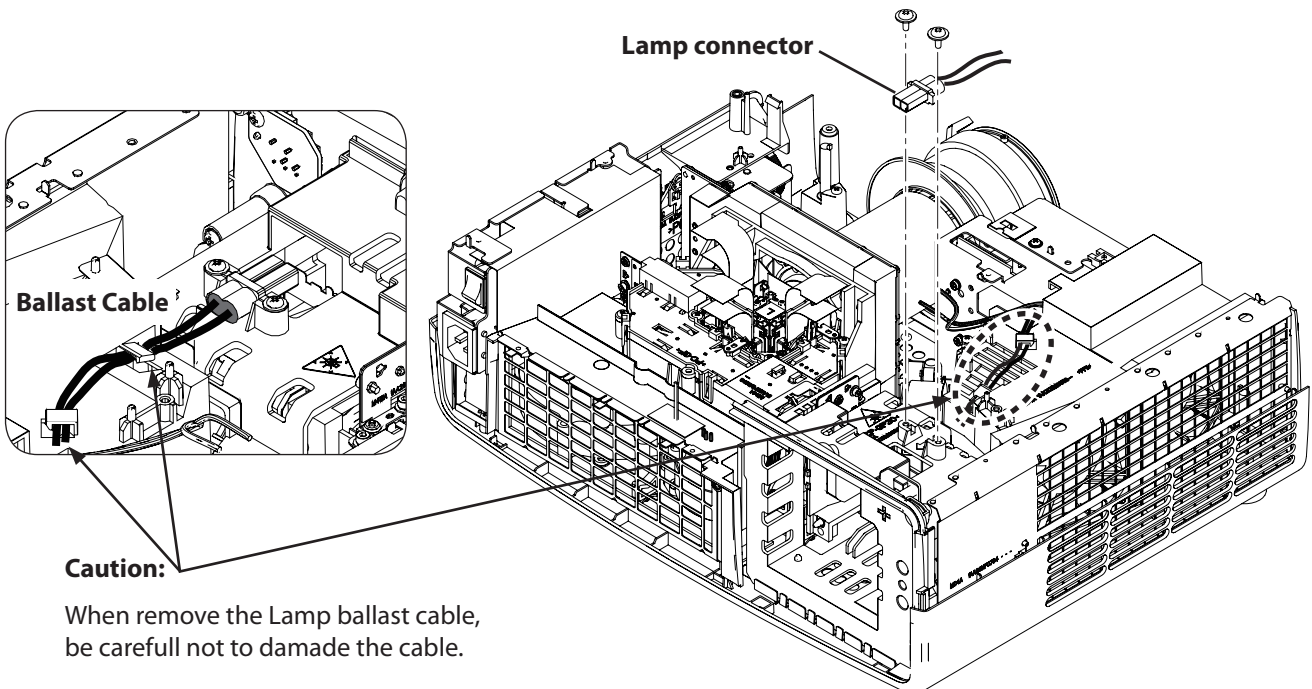


10-1 Lamp unit removal.

1. Loosen the 2 screws-A and remove the Lamp unit.
2. Remove the screw-B (T3x8) and remove the Main board holder.

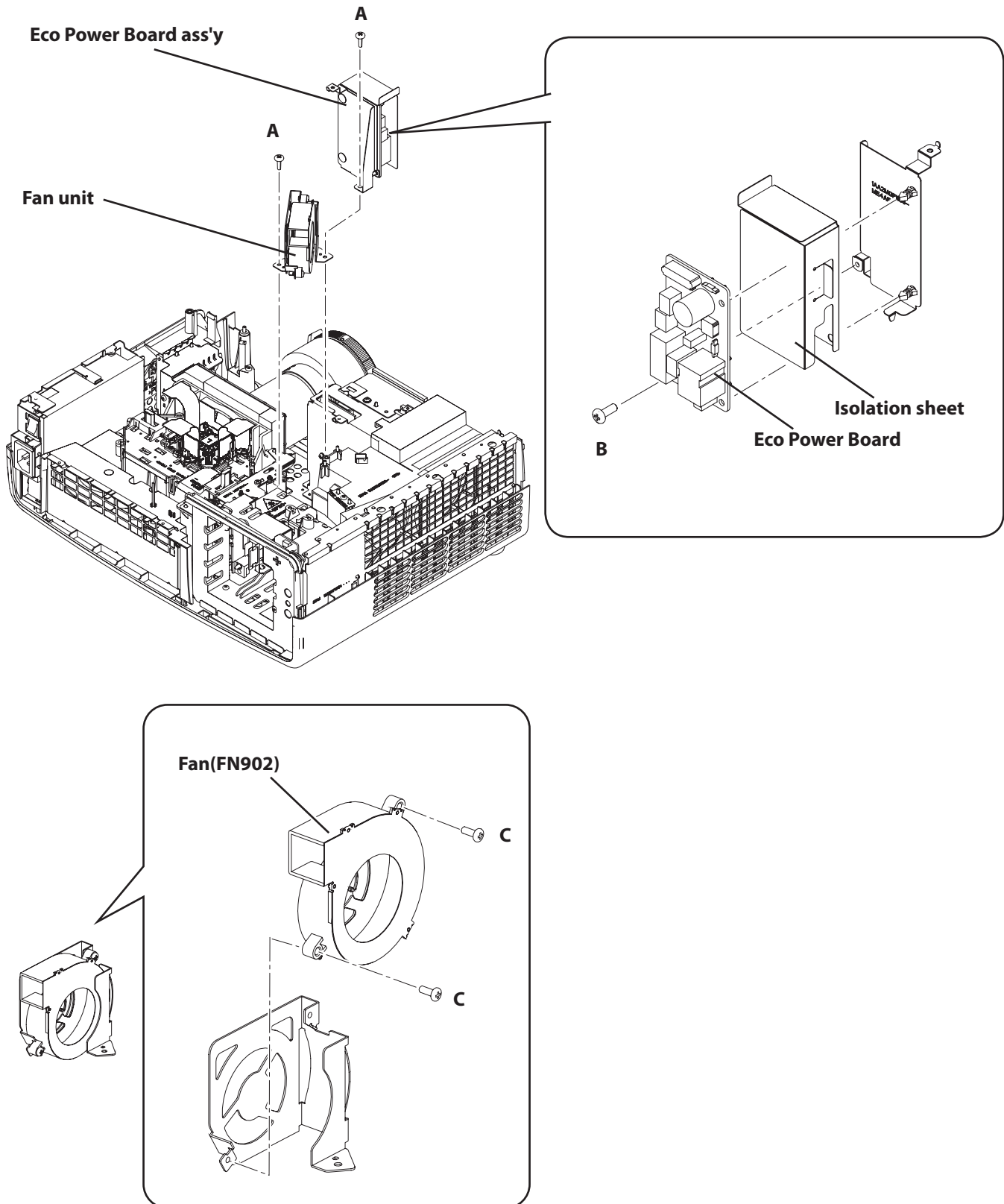
**10-2 Lamp connector removal.**

1. Remove the 2 screws(T3X6) and remove the Lamp connector.



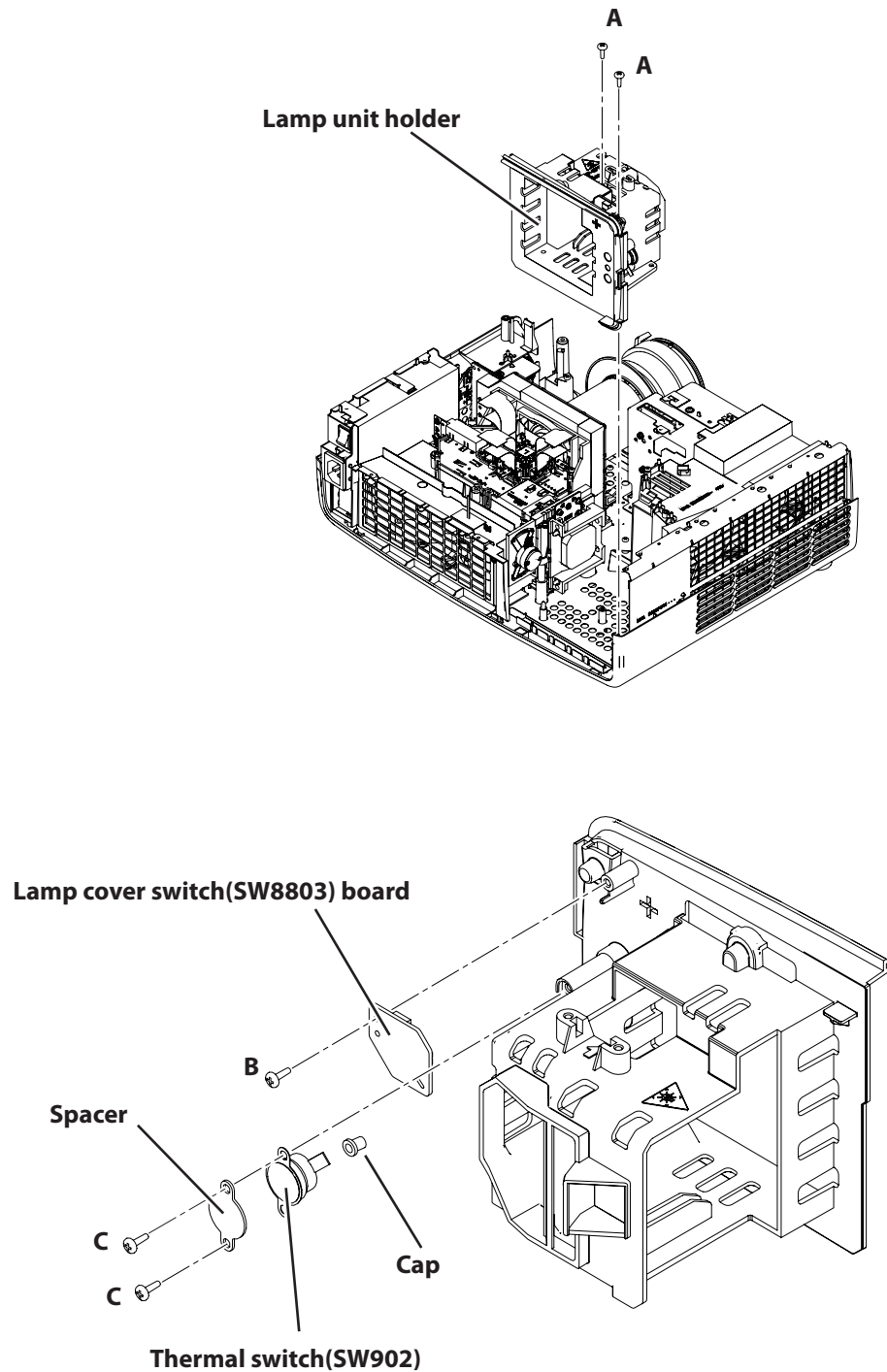
10-3 Eco Power Board and Fan(FN902) removal.

1. Remove 1 screws-A (T3x8) and remove the Eco Power Board ass'y.
2. Remove 1 screw-B (T3x8) and remove fan unit from the holder.
3. Remove 2 screws-C (M3x8) and remove the Fan(FN902).



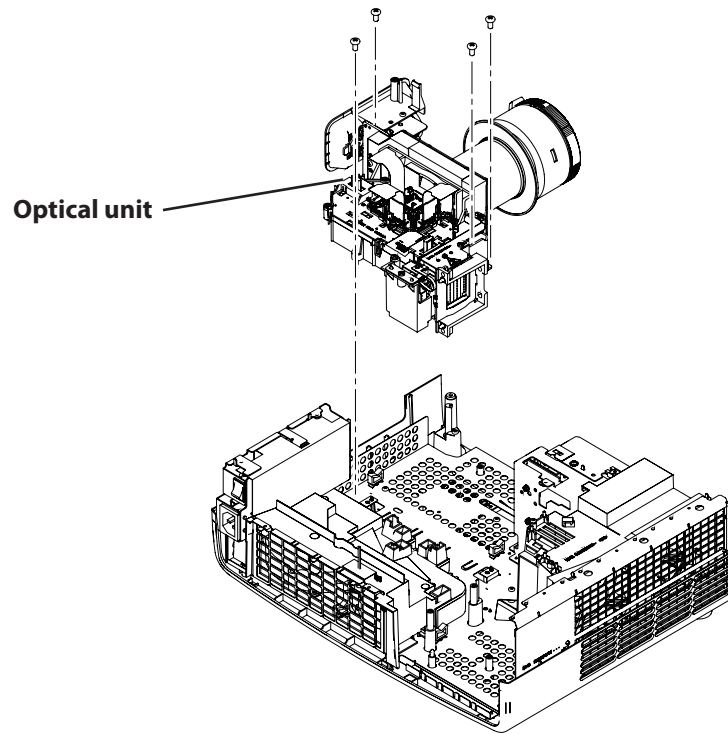
10-4 Lamp unit holder removal.

1. Remove the 2 screws-A (T3x8) and remove the Lamp unit holder.
2. Remove the screwB (T3x8) and remove the Lamp cover switch(SW8803) board.
3. Remove the 2screws-C (T3x8), remove the Spacer, remove the Cap and remove the Thermal switch(SW902).



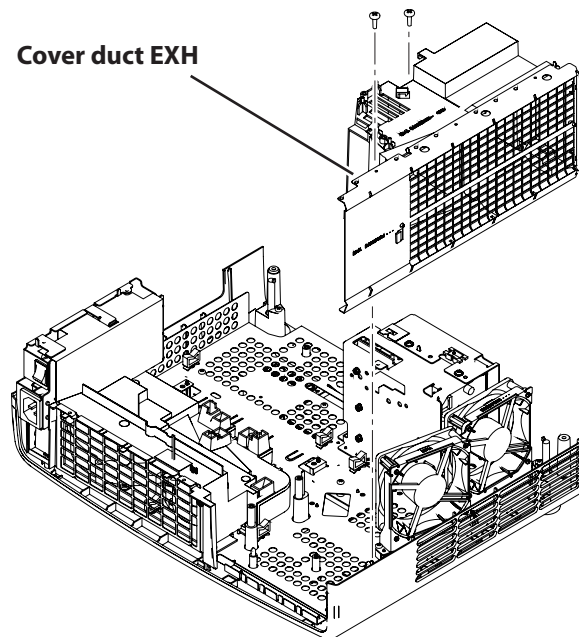
11 Optical removal.

1. Remove the 4 screws (T3x10) and remove the Optical unit.



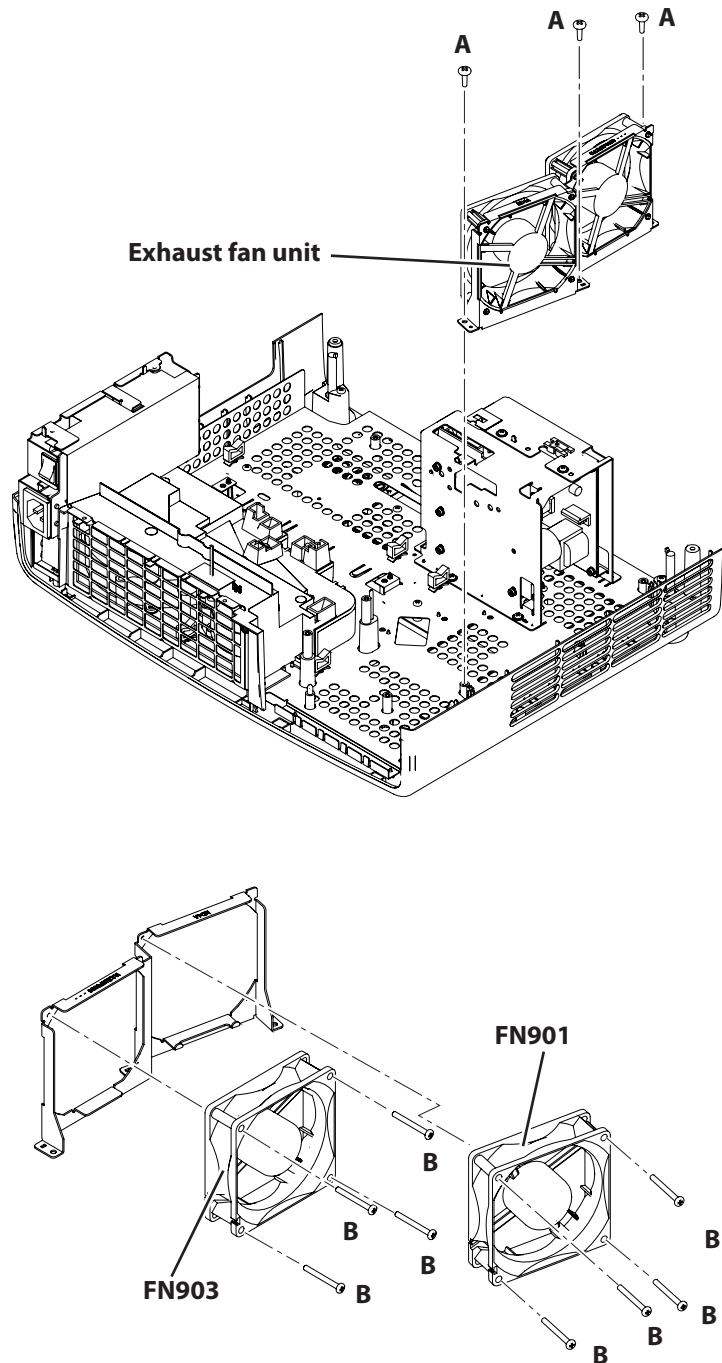
12-1 Cover duct EXH removal.

1. Remove the 2 screws (T3x8) and remove the Cover duct EXH.



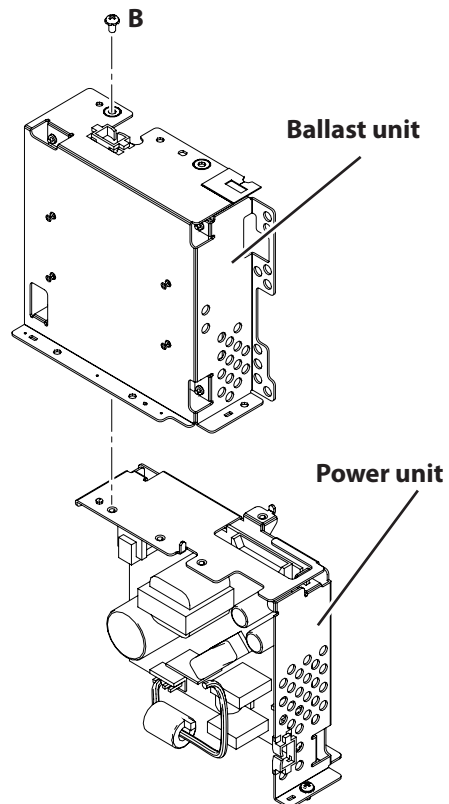
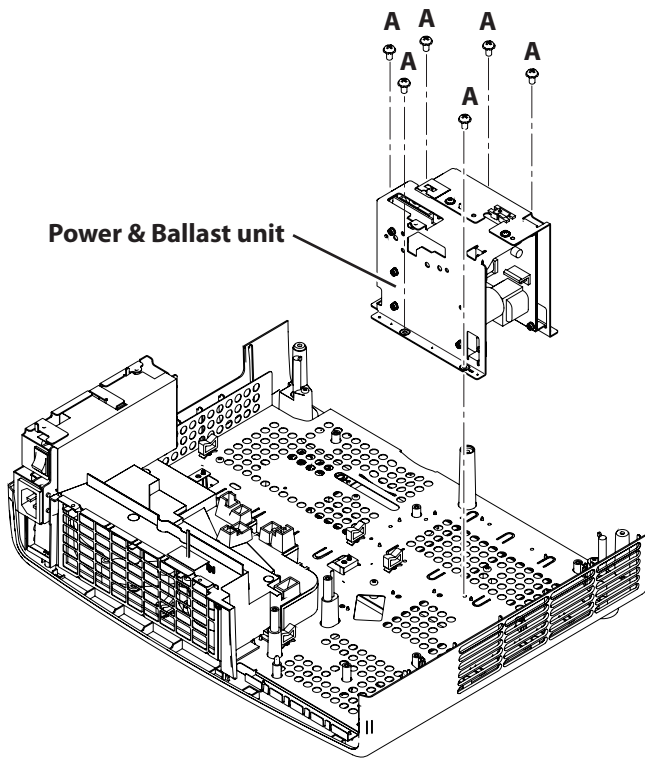
12-2 Exhaust Fan (FN901, FN903) removal.

1. Remove the 3 screws-A (T3x8) and remove the Exhaust fan unit.
2. Remove the 8 screws-B (M3x28) and remove the Exhaust fan FN901, FN903.



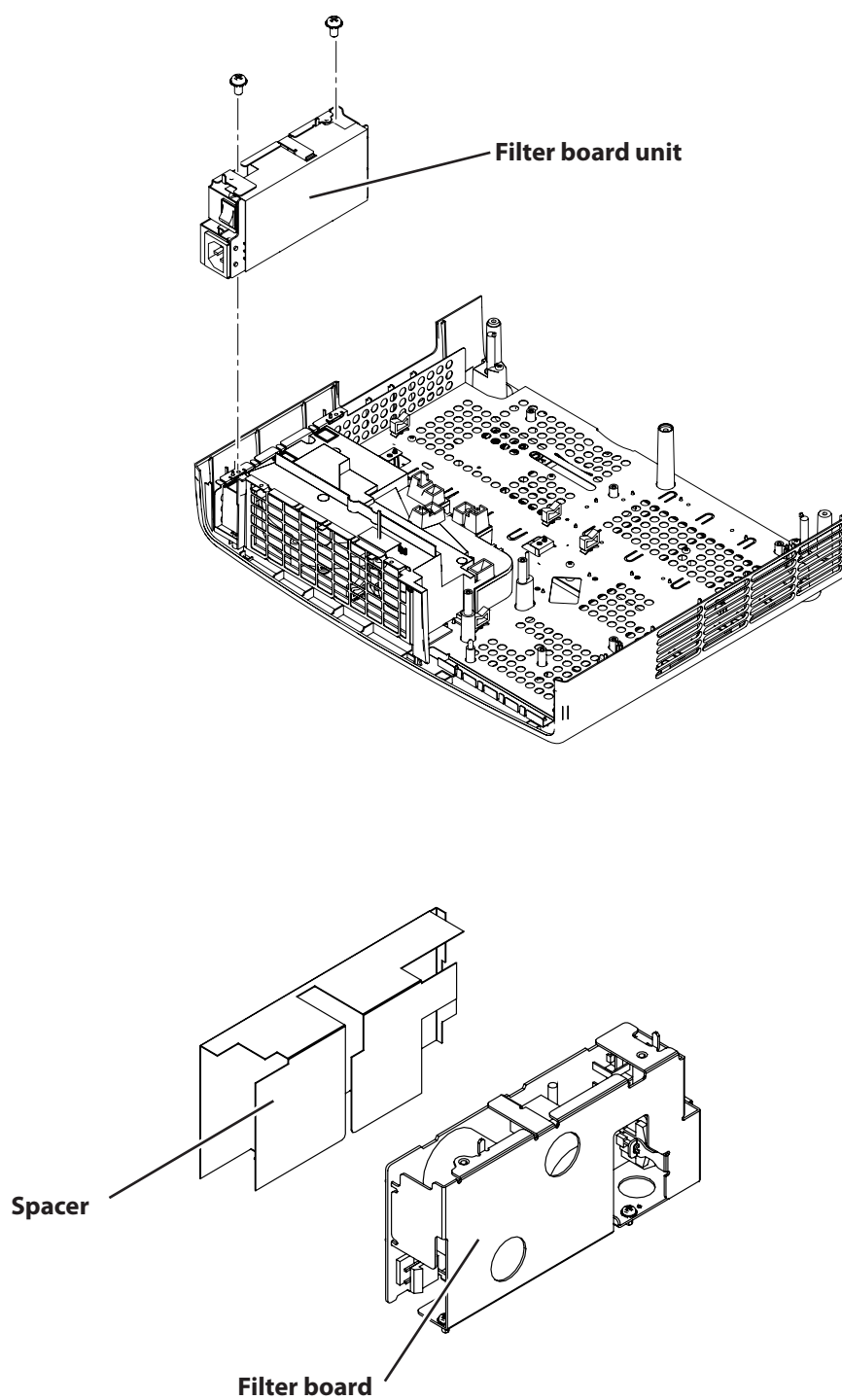
13 Power unit removal.

1. Remove the 6 screws-A (M3x6) and remove the Power & Ballast unit.
1. Remove the screw-B (M3x6) and remove the Power & Ballast unit.



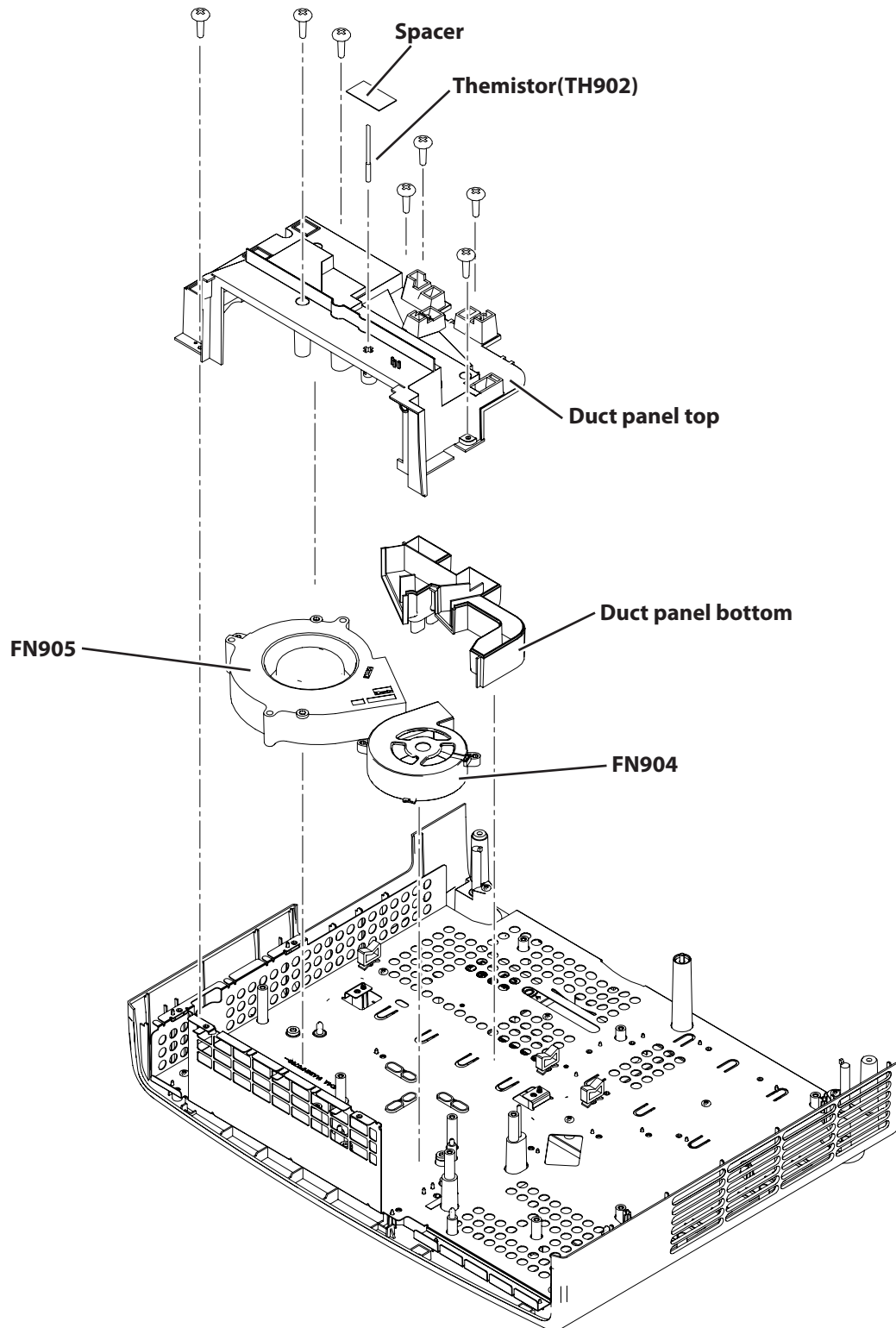
14 Filter board unit removal.

1. Remove the 2 screws (M3x6) and remove the Filter unit.



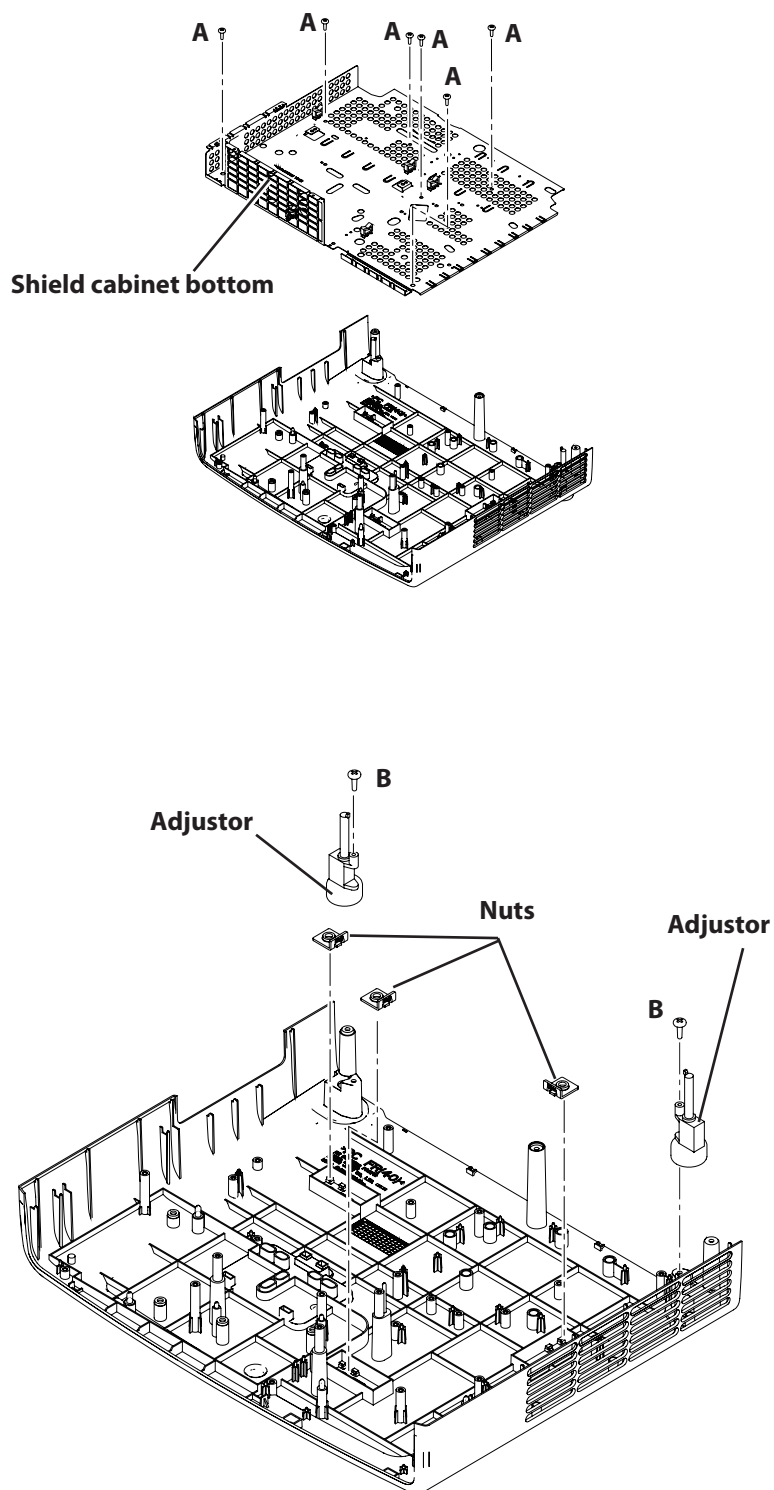
15 Duct unit removal.

1. Remove the 7 screws (T3x8) and remove the Duct panel top.
2. Remove the Spacer and remove the Themistor (TH902).
3. Remove the FN904 and FN905.
4. Remove the Duct panel bottom.



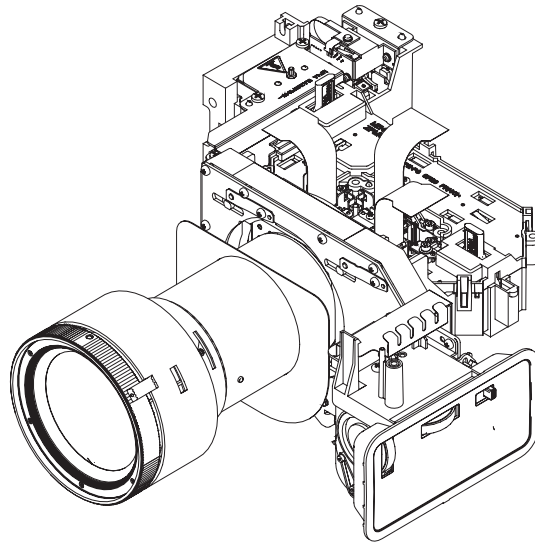
16 Cabinet bottom unit disassemblies.

1. Remove the 6 screws-A (T3x8) and remove the Shield cabinet bottom.
2. Remove the 2 screws-B (T3x8) and remove the Adjustor.
3. Remove the 3 nuts.



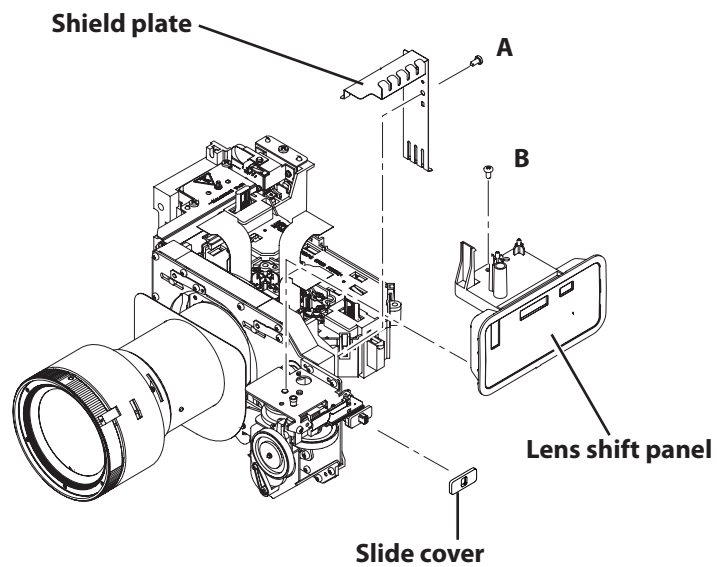
Optical disassemblies

Optical unit



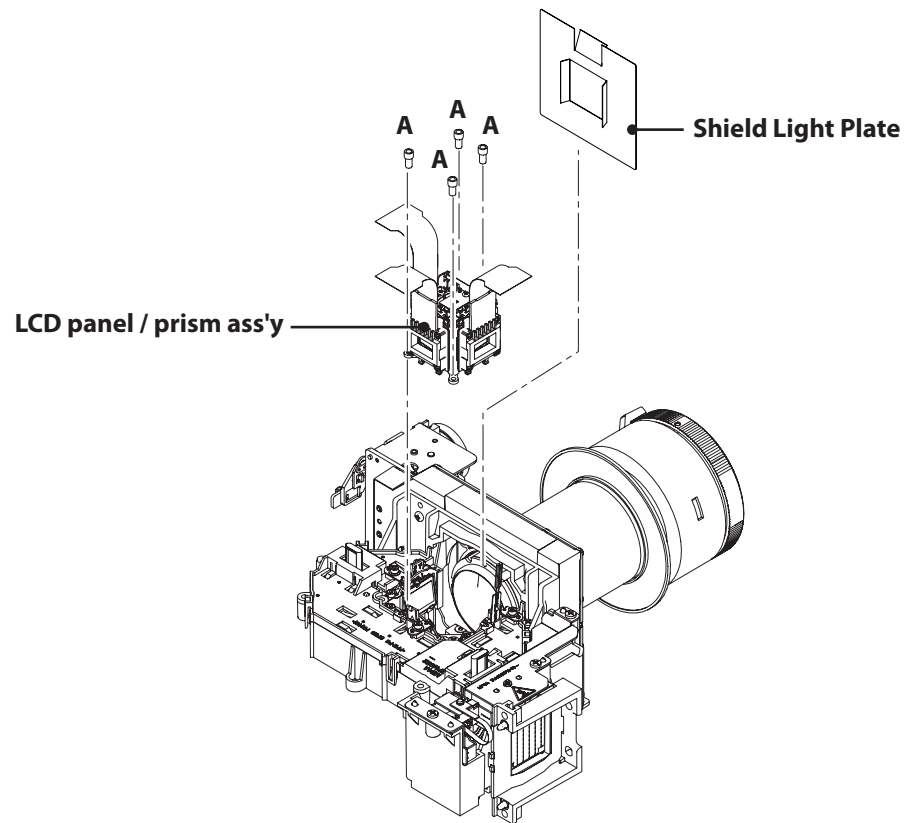
1 Lens shift panel removal.

1. Remove the screw-A (M3x6), remove the shield plate.
2. Remove the screw-B (M3x6), remove the Lens shift panel and remove the Slide cover.



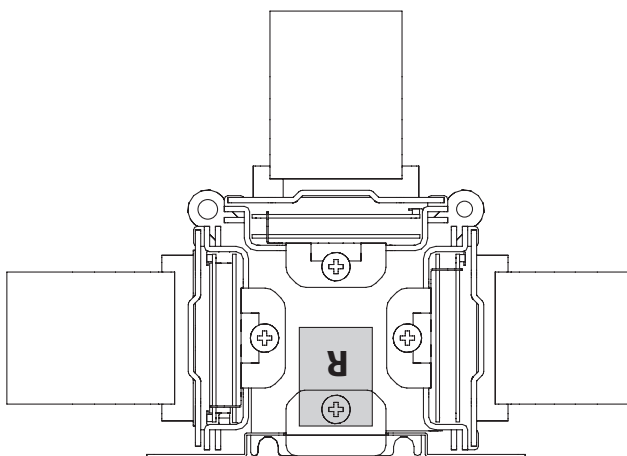
2 LCD panel / prism ass'y removal.

1. Remove the Shield Light Plate upward.
2. Remove the 4 screws-A (M2.5x4) and remove the LCD panel / prism ass'y.

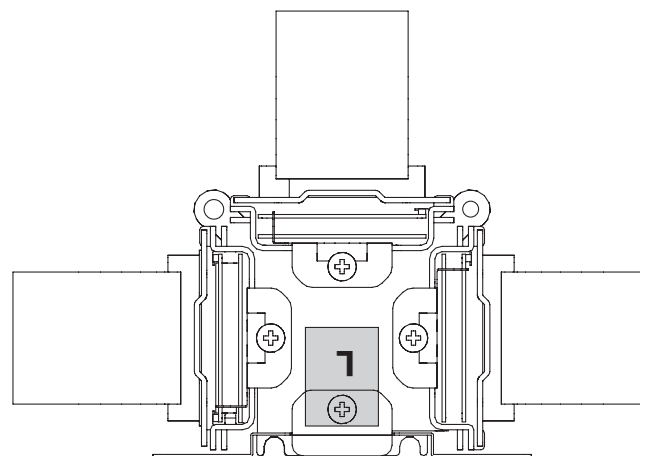


Panel Type Check

There are 2 types combination of the LCD Panel/Prism Ass'y and the optical unit, named Type-L and Type-R. Since both have no compatibility, each type should be combined with the same type, and the specific parts should be used. If not, the poor optical characteristics may degrade the quality of a projected image.



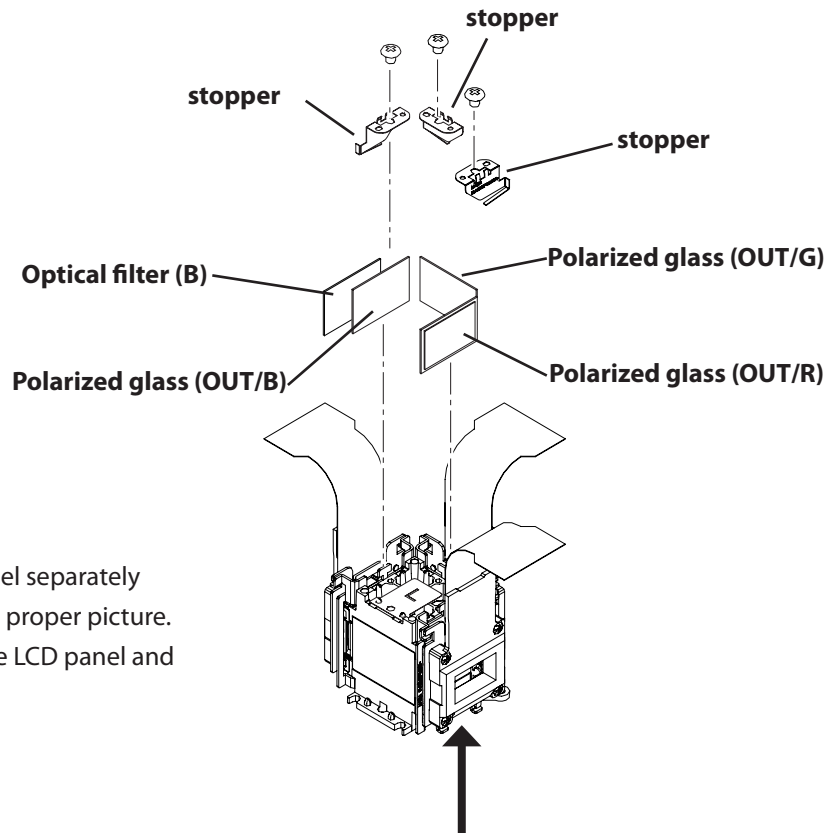
LCD panel / prism ass'y (Type-R)



LCD panel / prism ass'y (Type-L)

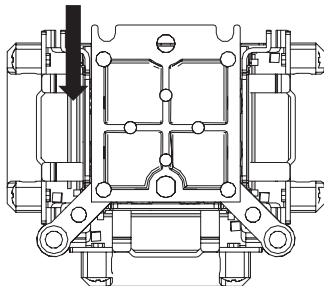
3 LCD panel / prism ass'y disassemblies.

1. Remove the 3 screws (M2x2), remove the 3 Stoppers Optical filter and remove the Polarized glasses(R,G,B). (Push from bottom side.)



Note; Do not replace the LCD panel separately otherwise it can not obtain proper picture. Do not touch the prism, the LCD panel and electrode of flexible cable.

Push and remove



Note;

When remove the polarized glasses and optical filters, push from bottom side,

IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement

LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.

After replacing LCD Panel/Prism ass'y, please check the following adjustments.

- Check the "White Balance Adjustment" and "Common Center Adjustment" following to chapter "Electrical Adjustment".
- Check the white uniformity on the screen.

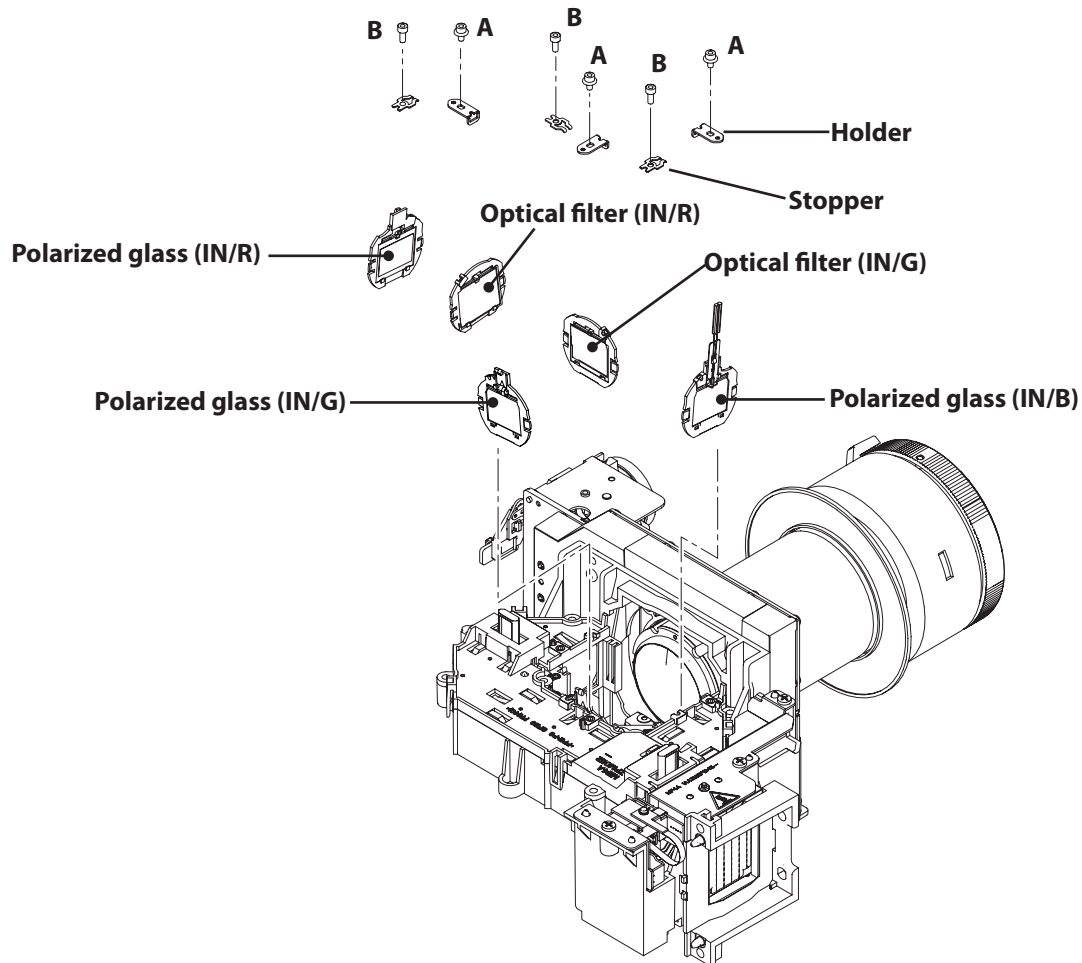
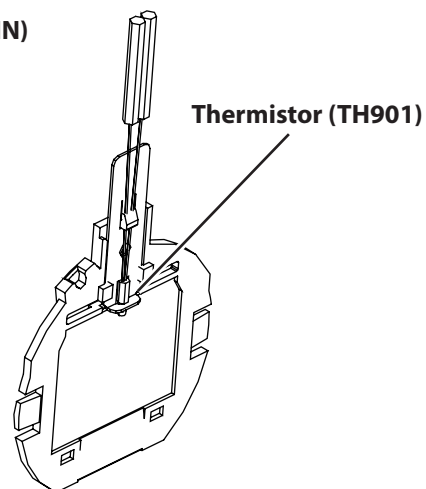
If you find the color shading, please adjust the white uniformity by using the proper computer and "Projector Service Tool" software supplied separately. The software can be ordered as follows;

Projector Service Tool Ver. 4.10

Service Parts No. 610 337 8787

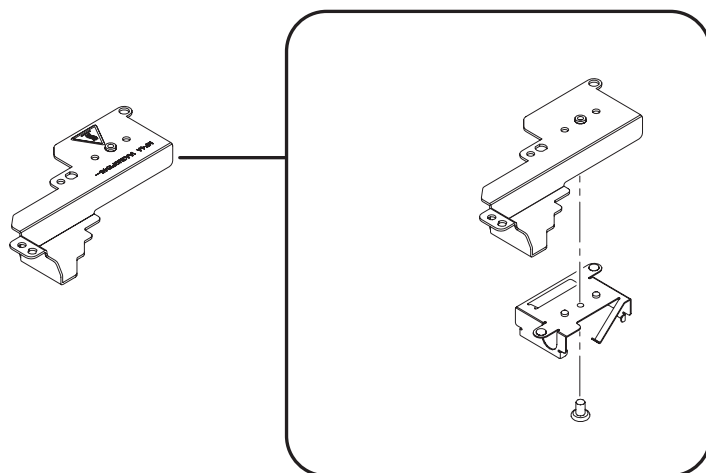
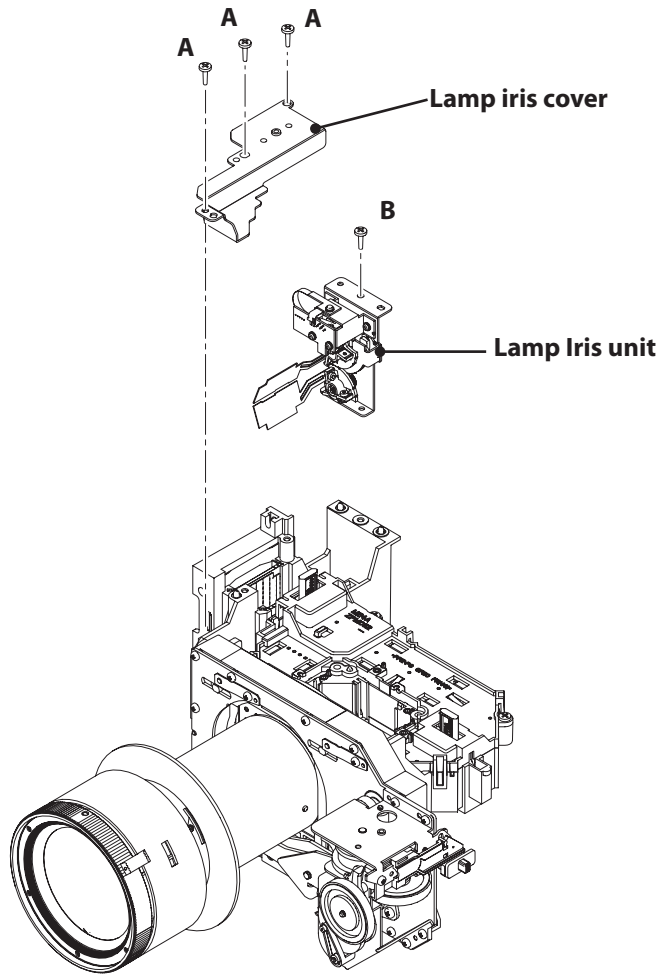
4**Polarized glasses removal.**

1. Remove the 3 screws-A (M2.5x5) and remove the 3 Holders (R,G,B).
2. Remove the 3 screws-B (M2.5x6) and remove the 3 Stoppers (R,G,B).
3. Remove the 2 Optical filter ass'y and remove the 3 Polarized glass (IN) ass'y (R,G,B).

**Blue-Polarized glass (IN)**

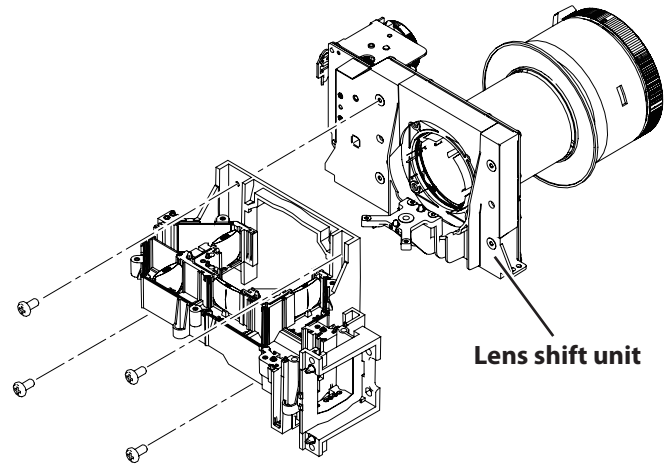
5 Lamp iris unit removal.

1. Remove the 3 screws-A (T3x10) and remove the lamp iris cover.
2. Remove the screw-B (T3x10) and remove the Lamp Iris unit.



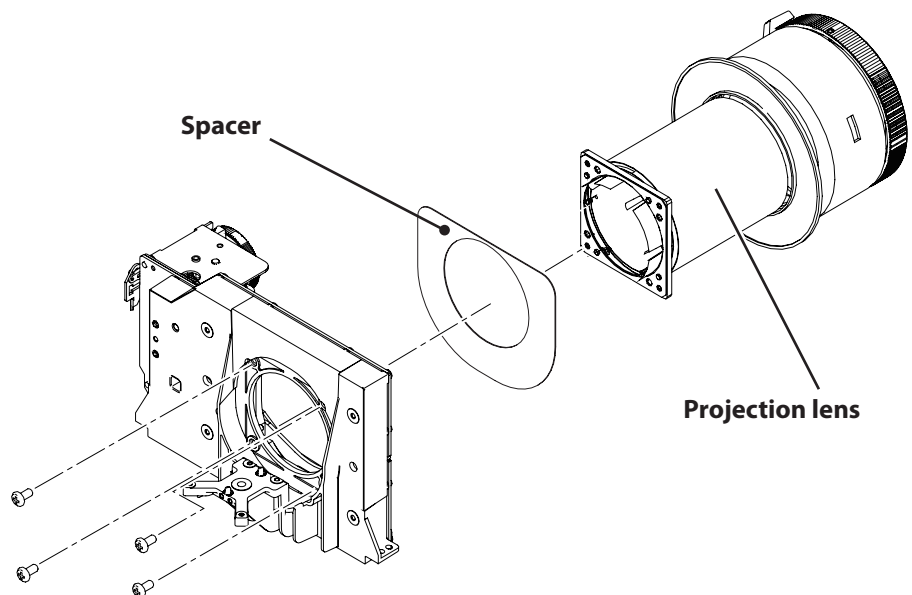
6 Lens shift unit removal.

1. Remove the 4 screws (M3x6) and remove the Lens shift unit.



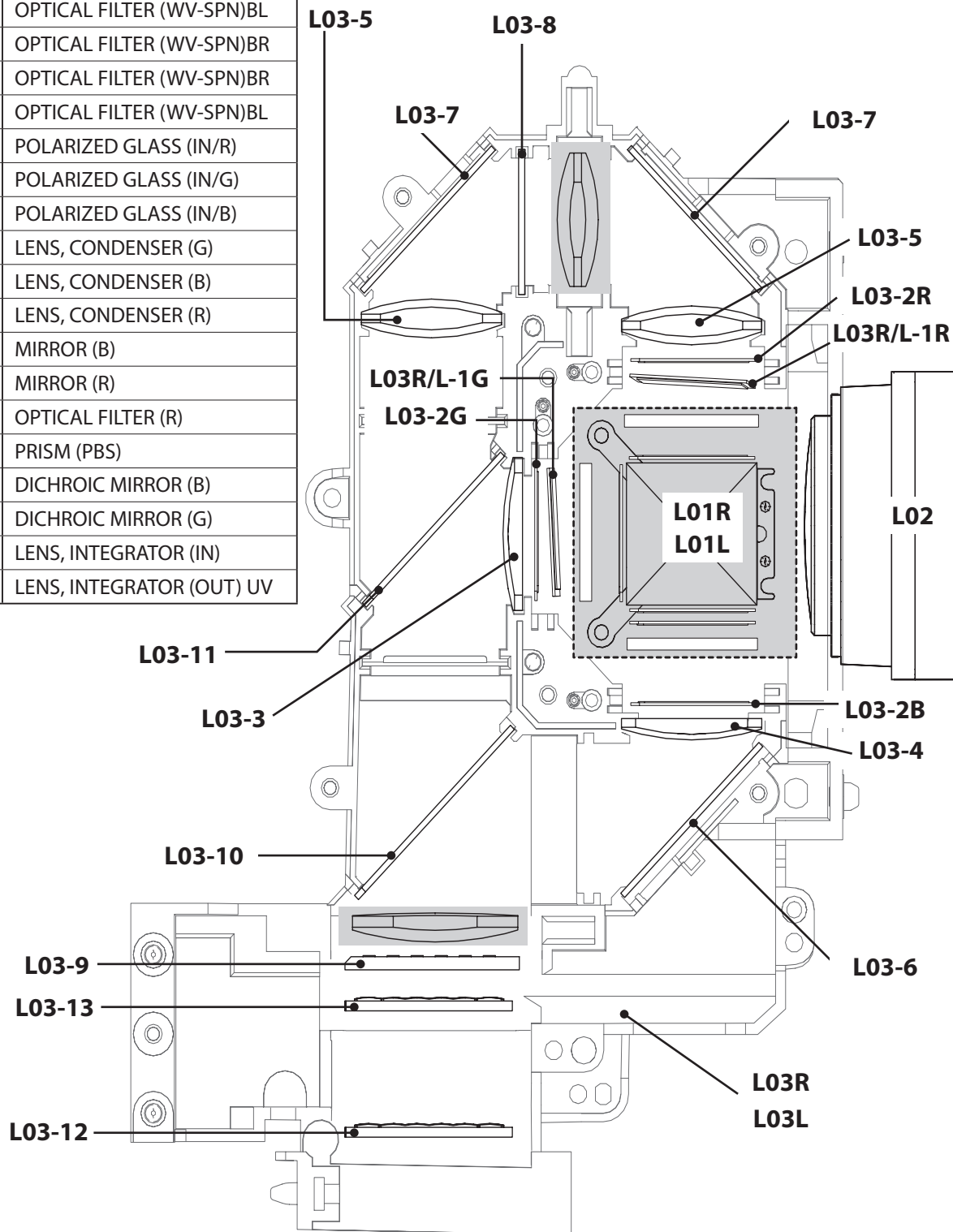
7 Projection lens removal.

1. Remove the 4 screws (M2.6x6) and remove the Projection lens.



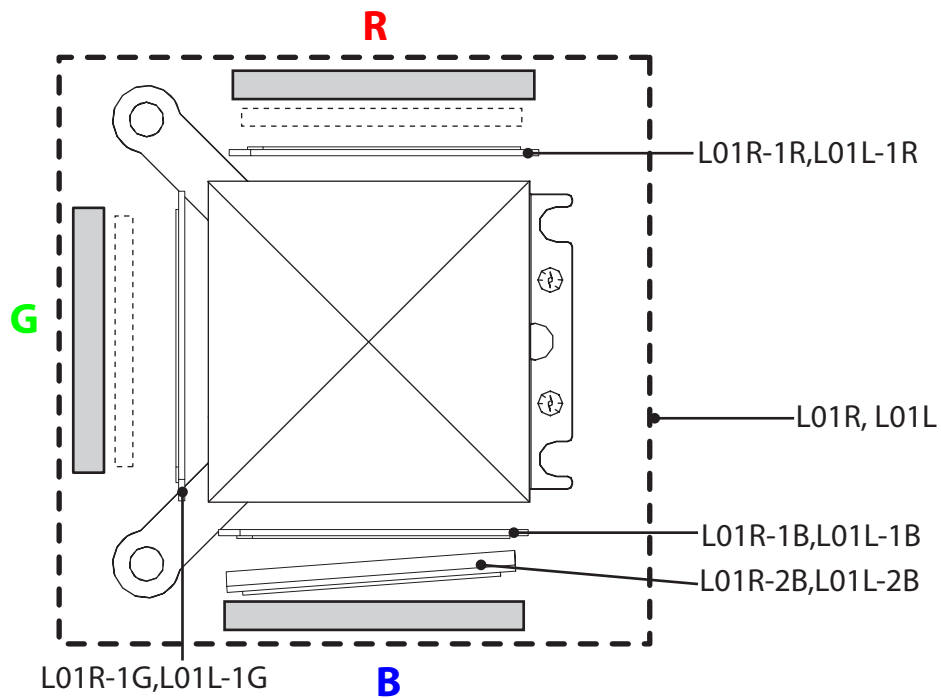
● Optical parts location and direction

L01R	ASSY, LCD PNL/SM R-MF4A
L01L	ASSY, LCD PNL/SM L-MF4A
L02	LENS, PROJECTIO
L03R/L03L	COMPL, OPTICAL R/L-MF4A
L03R-1R	OPTICAL FILTER (WV-SPN)BL
L03R-1G	OPTICAL FILTER (WV-SPN)BR
L03L-1R	OPTICAL FILTER (WV-SPN)BR
L03L-1G	OPTICAL FILTER (WV-SPN)BL
L03-2R	POLARIZED GLASS (IN/R)
L03-2G	POLARIZED GLASS (IN/G)
L03-2B	POLARIZED GLASS (IN/B)
L03-3	LENS, CONDENSER (G)
L03-4	LENS, CONDENSER (B)
L03-5	LENS, CONDENSER (R)
L03-6	MIRROR (B)
L03-7	MIRROR (R)
L03-8	OPTICAL FILTER (R)
L03-9	PRISM (PBS)
L03-10	DICHROIC MIRROR (B)
L03-11	DICHROIC MIRROR (G)
L03-12	LENS, INTEGRATOR (IN)
L03-13	LENS, INTEGRATOR (OUT) UV

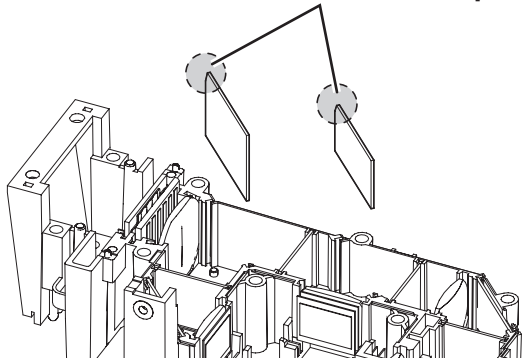


ASSY, LCD PNL / PSM

L01R	ASSY, LCD PNL/SM R-MF4A
L01R-1R	POLARIZED GLASS(OUT/R)
L01R-1G	POLARIZED GLASS(OUT/G)
L01R-1B	POLARIZED GLASS(OUT/B)
L01R-2B	OPTICAL FILTER (WV-QZ)BL
L01L	ASSY, LCD PNL/SM L-MF4A
L01L-1R	OPTICAL GLASS(OUT/R)
L01L-1G	OPTICAL GLASS(OUT/G)
L01L-1B	OPTICAL GLASS(OUT/B)
L01L-2B	OPTICAL FILTER (WV-QZ)BR



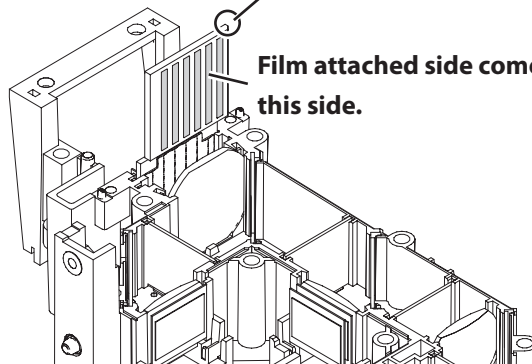
Chamfer corner comes this side up.



DICHROIC MIRROR

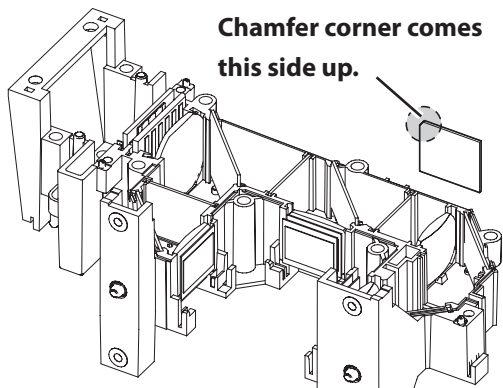
Chamfer corner comes this side.

Film attached side comes this side.



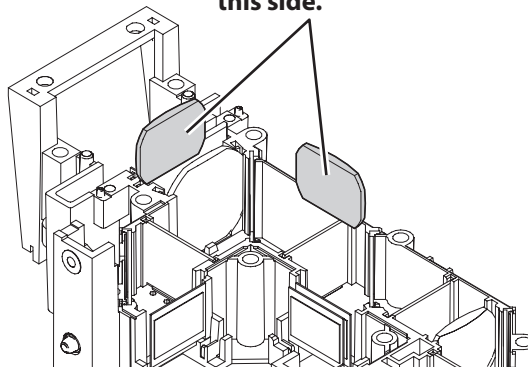
PBS

Chamfer corner comes this side up.



OPTICAL FILTER (R)

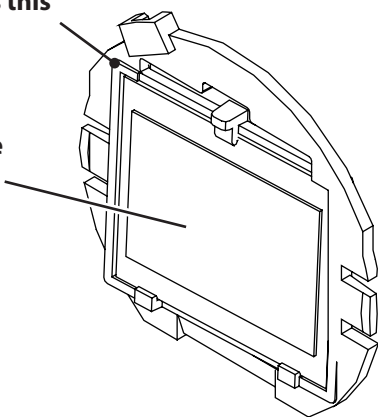
Flat surface side comes this side.



CONDENSER LENS (G, B)

The marker comes this up side.

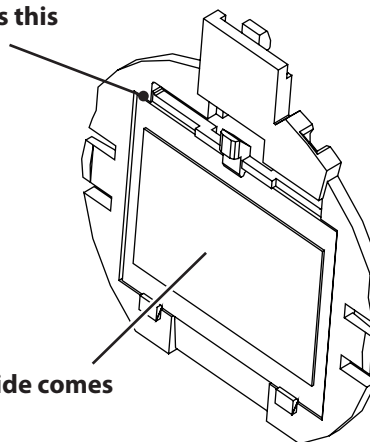
Film attached side comes this side.



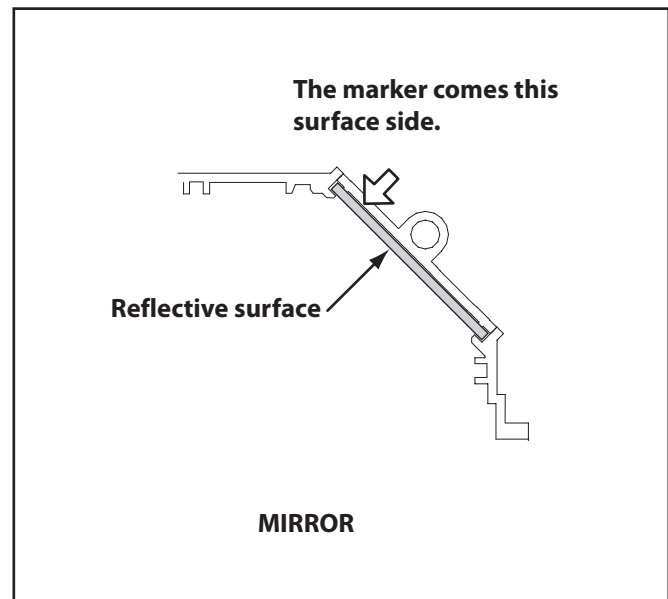
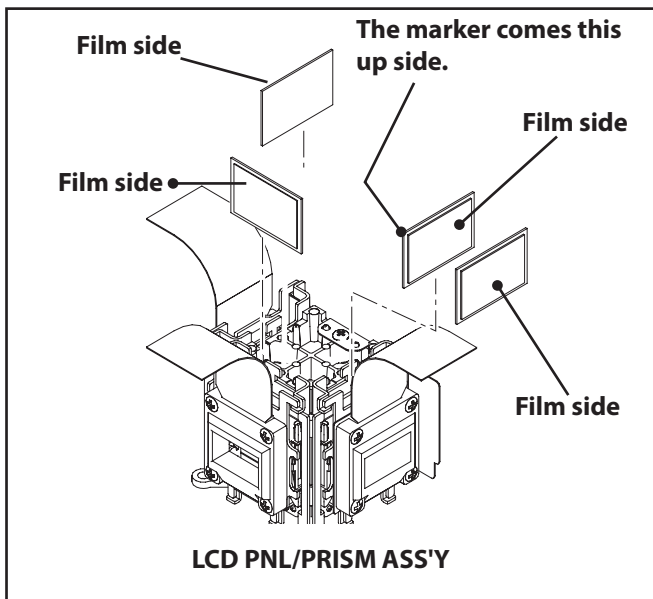
OPTICAL FILTER

The marker comes this up side.

Film attached side comes this side.



POLARIZED GLASS (IN)



Adjustments

Adjustments after Parts Replacement

● : Adjustment necessary ○ : Check necessary

		Disassembly / Replaced Parts									
		LCD/ Prism Ass'	COMPL, OPTICAL UNIT	Optical Filter			Polarized Glass			Power Board	Main Board
				R	G	B	R	G	B		
Optical Adjustments	Contrast Adjustment										
	R-Contrast adjustment	○	○	●			●				
	G-Contrast adjustment	○	○		●			●			
	B-Contrast adjustment	○	○			●			●		
Electrical Adjustments	Fan minimum voltage adjustment									●	●
	Fan maximum voltage adjustment									●	●
	Auto calibration adjustment [PC]										●
	Auto calibration adjustment [Composite] NTSC										●
	Auto calibration adjustment [Component] 480i										●
	Auto calibration adjustment [Component] 480p										●
	Auto calibration adjustment [Component] 720p										●
	Auto calibration adjustment [Component] 1080i										●
	Common center adjustment	●									●
	Color Correction	○									○
	Color Shading Contrast adjustment	○									○
	Read/Wright of LCD panel gamma data	○									○

■ MEMORY IC REPLACEMENT

IC1391 on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.

If replaced, it should be performed the re-adjustments following to the "Electrical Adjustments".

The data of lamp replacement monitor timer is stored in the IC1391.

Please note that the lamp replace counter is reset when the memory IC (IC1391) is replaced.

(Lamp replace counter can not be set to the previous value.)

● Caution to memory IC replacement

When IC1391 is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC, refer to the service adjustment table. As these

data are not the same data as factory shipped data, it should be required to perform the re-adjustments following to the "Electrical Adjustments".

Please note that in this case the lamp replace counter will be reset.

● Caution of Main Board replacement (in the case IC1391 is not defective)

When the main board is replaced, IC1391 should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the "Electrical Adjustments".

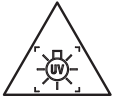
In this case, the lamp replace counter can be kept the value as before.

Optical Adjustment

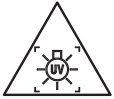
Before taking optical adjustments below, remove the Cabinet Top following to the "Mechanical Disassemblies". Adjustments require a 2.0mm hex wrench, Philips Screwdriver and a slot screwdriver. When you adjust Integrator lens or Relay lens adjustment, you need to disconnect some connectors and FPC cables of LCD panels on the main board.

Note:

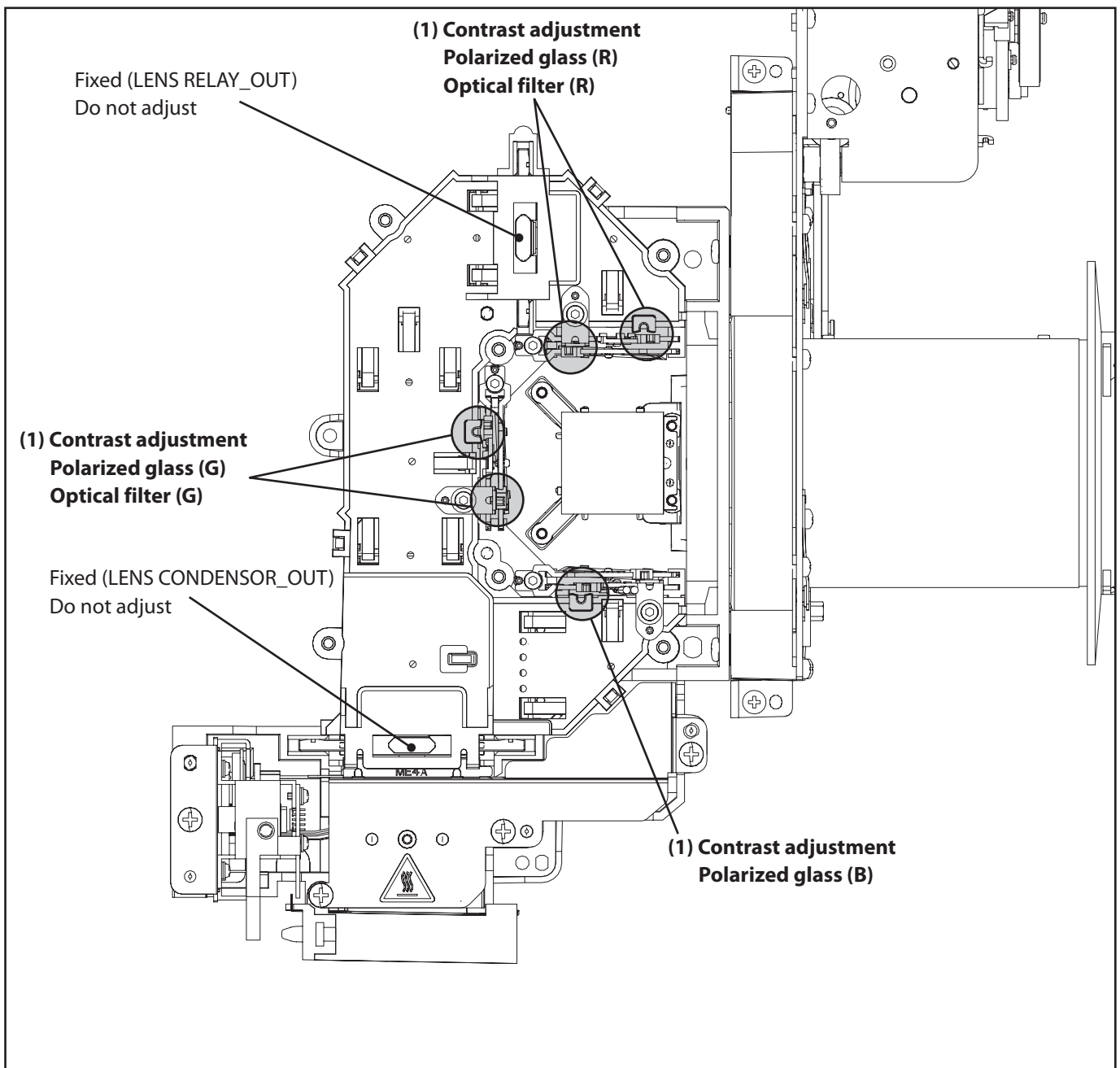
Do not disconnect connectors on the main board, because the projector can not turn on or operate properly for adjustment.



**WARNING : USE UV RADIATION EYE AND SKIN PROTECTION
DURING SERVICING**



**CAUTION: To prevent suffer of UV radiation, those adjustments
must be completed within 25 minutes.**



1. Contrast adjustment (Polarized glass and Optical filter)

[Before Adjustment]

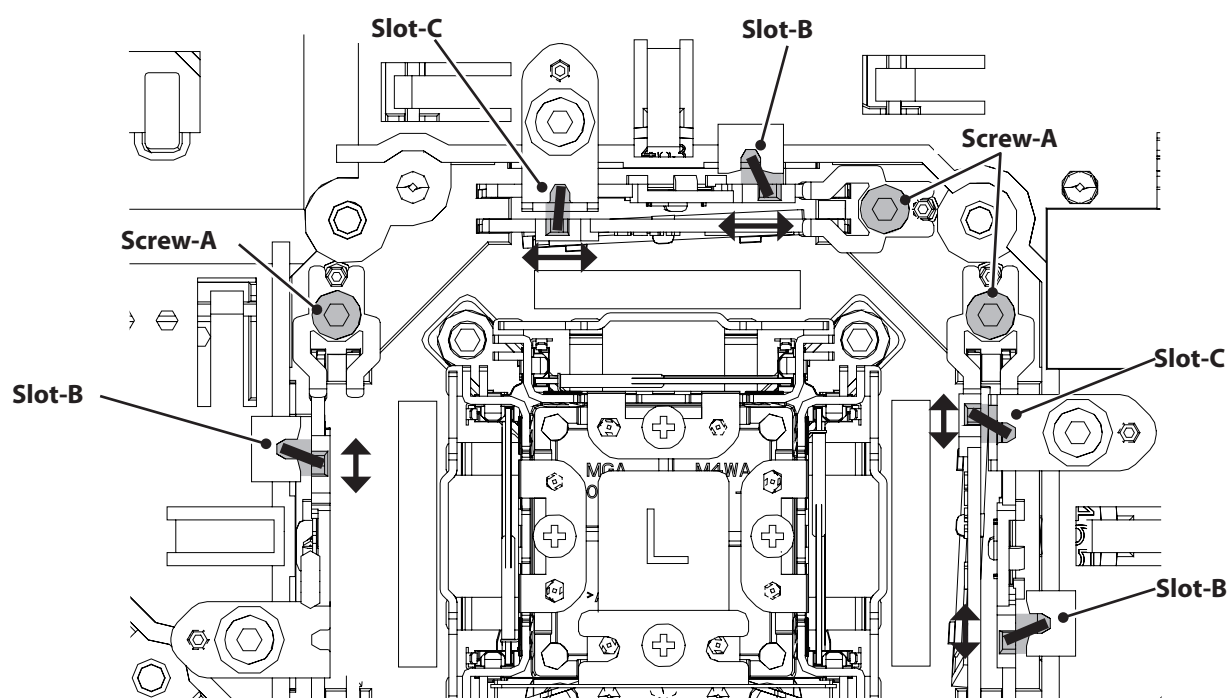
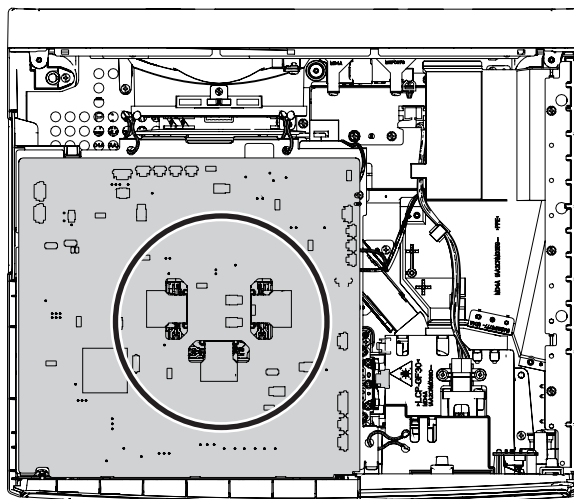
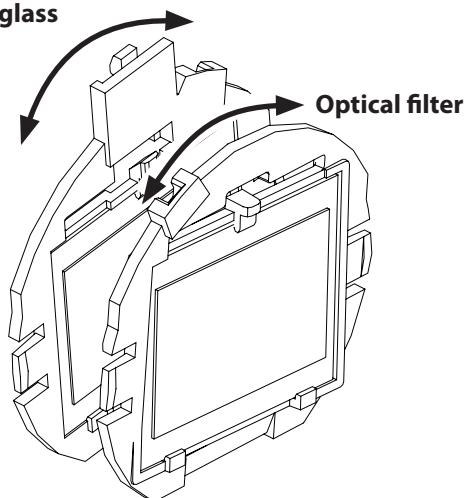
- Input a 100% of black raster signal.

1. Loosen a screw **A** on the optical base which you intend to adjust.
2. Adjust the slot **B** to obtain the darkest brightness on the screen.
(Polarized glass adjustment.)
3. Adjust the slot **C** to obtain the darkest brightness on the screen.
(Optical filter adjustment.)
4. Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 4 for remaining polarized glasses.

Blue Optical filter is not adjusted.

Polarized glass



Electrical Adjustment

Service Adjustment Menu Operation

◆ To enter service mode

To enter service mode, press and hold the "**MENU**" and "**INPUT**" buttons on the projector simultaneously for 5 seconds. (Or press and hold the "**MENU**" button on the remote control unit for 20 seconds.) The "**S**" mark appears on the screen. While the "**S**" mark is displayed on the screen, press and hold the "**POINT UP**" and "**POINT DOWN**" buttons on the projector or "**SCREEN**" button on the remote control unit for more than 3 seconds. As shown in a figure, a service mode display appears on a screen.

◆ To adjust service data

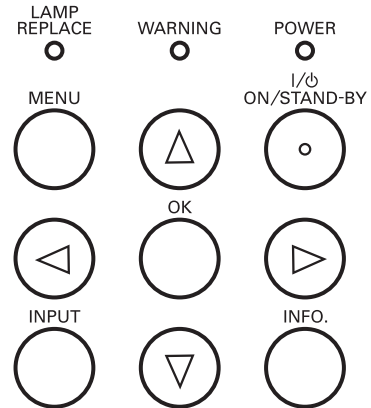
Adjust service data using the following control buttons.

- "**OK**"A group number increases.
- "**MENU**"A group number decreases.
- "**POINT UP**"An item number increases.
- "**POINT DOWN**"An item number decreases.
- "**POINT RIGHT**"An adjustment value increases.
- "**POINT LEFT**"An adjustment value decreases.

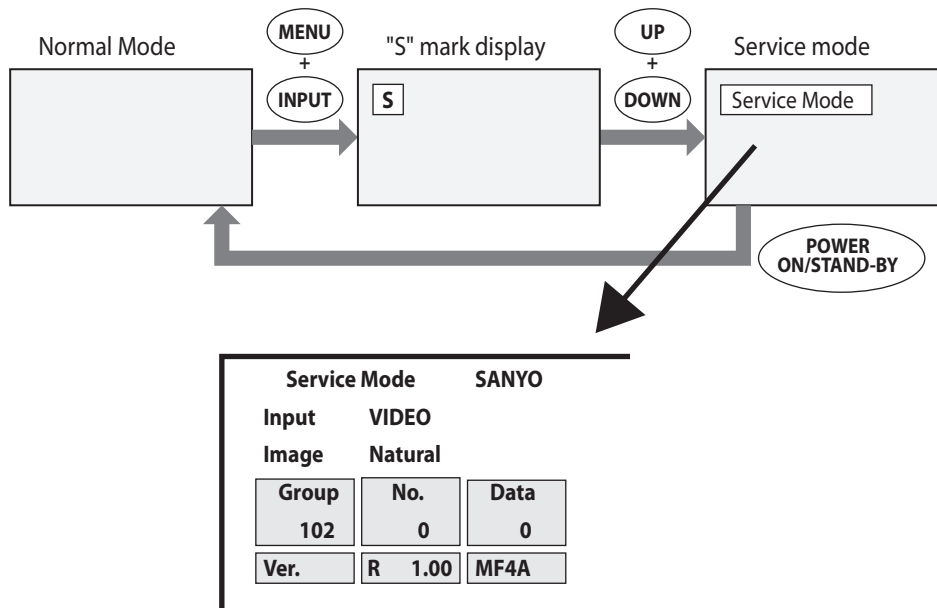
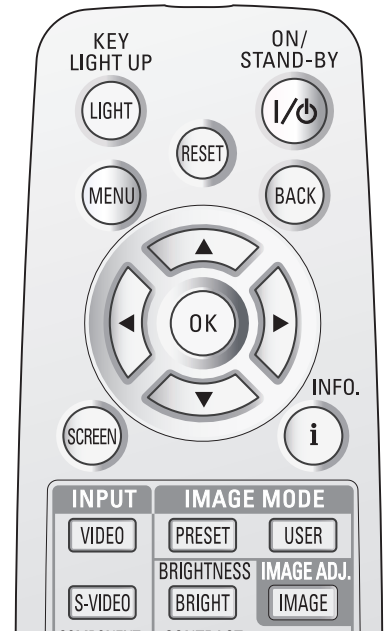
◆ To exit service mode

To quit the service mode, press the "**POWER ON/STAND-BY**" button only once on the projector or the remote control unit .

Top Control



Remote Control

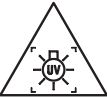


Service Mode				SANYO
Input	VIDEO			
Image	Natural			
Group	No.	Data		
102	0	0		
Ver.	R	1.00	MF4A	

Circuit Adjustment

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

Before adjustment, turn on the projector more than 10 minutes.



WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING

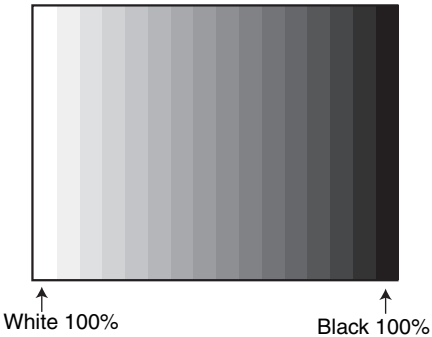


CAUTION: To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

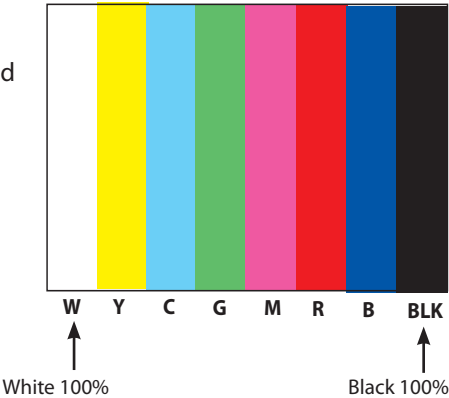
[Adjustment Condition]

- Input signal
Video signal1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)
Component Video signal0.7Vp-p/75Ω terminated, 8 color 100% color bar or 16 steps gray scale (Component video signal)
Computer signal0.7Vp-p/75Ω terminated, 16 steps gray scale pattern
- Image control mode.....“STANDARD” mode unless otherwise noted.

16 steps gray scale pattern



8 color 100% color bar



Note:
* Please refer to “Service Adjustment Menu Operation” for entering the service mod

1. Fan minimum voltage adjustment

Equipment Digital voltmeter

1. Enter the service mode.
2. Change data values of each test points to adjust the fan minimum output voltage.

Item no.	Fan Location	Test Point	Adjustment value
250 - 8	FN901	TPFAN1	3.5 $\pm 0.05\text{Vdc}$
250 - 9	FN902	TPFAN2	3.5 $\pm 0.05\text{Vdc}$
250 - 10	FN903	TPFAN3	3.5 $\pm 0.05\text{Vdc}$
250 - 11	FN904	TPFAN4	3.5 $\pm 0.05\text{Vdc}$

GND TE-MAIN (Shield plate)

Note:

The location of each fan is refer to the parts list.
FN905 is non adjustment.

2. Fan maximum voltage adjustment

Equipment Digital voltmeter

1. Enter the service mode.
2. Change data values of each test points to adjust the fan minimum output voltage.

Item no.	Fan Location	Test Point	Adjustment value
250 - 12	FN901	TPFAN1	13.8 $^{+0}_{-0.05}\text{Vdc}$
250 - 13	FN902	TPFAN2	13.8 $^{+0}_{-0.05}\text{Vdc}$
250 - 14	FN903	TPFAN3	13.8 $^{+0}_{-0.05}\text{Vdc}$
250 - 15	FN904	TPFAN4	13.8 $^{+0}_{-0.05}\text{Vdc}$

GND TE-MAIN (Shield Plate)

Note:

The location of each fan is refer to the parts list.
FN905 is non adjustment.

3. Auto Calibration adjustment [PC]

Input signal 16-step gray scale signal (XGA4)
Input mode PC Analog
Input image Natural
G-sync off

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

4. Auto Calibration adjustment [Composite] NTSC

Input signal NTSC colour bar
Input mode (Video)
Input image Natural

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

Note ;

Include the white 100%, black 0% red 100%, blue 100% and green 100% in the color bar of the input signal.

5. Auto Calibration adjustment [Component] 480i

Input signal 480i (Y, Cb, Cr) colour bar
Input mode (Component1)
Input image Natural

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

Note ;

Include the white 100%, black 0% red 100%, blue 100% and green 100% in the color bar of the input signal.

6. Auto Calibration adjustment [Component] 480p

Input signal	480p (Y, Cb, Cr) colour bar
Input mode	(Component1)
Input image	Natural

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

Note ;

Include the white 100%, black 0% red 100%, blue 100% and green 100% in the color bar of the input signal.

7. Component (720p) input adjustment

Input signal	720p (Y, Cb, Cr) colour bar
Input mode	(Component1)
Input image	Natural

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

Note ;

Include the white 100%, black 0% red 100%, blue 100% and green 100% in the color bar of the input signal.

8. Auto Calibration adjustment [Component] 1080i

Input signal	1080i (Y, Cb, Cr) colour bar
Input mode	(Component1)
Input image	Natural

1. Enter the service mode.
2. Select group/item no. "**260 - 0**", and the data value changed from "**0**" to "**1**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, "**OK**" will appear on screen.

Note ;

Include the white 100%, black 0% red 100%, blue 100% and green 100% in the color bar of the input signal.

9. Common Center adjustment

Input mode	Internal signal
Image mode	Adjustment
Input signal	50% whole-white pattern

1. Enter the service mode.
2. Select group "**102**".
(Flicker adjustment mode ...See Note)
3. Project only one color component to the screen.
4. Change data value to obtain **the minimum flicker** for each color on the screen.

Item no.	Screen
102 - 39	Only red color picture
102 - 40	Only green color picture
102 - 41	Only blue color picture

Note:

The FRP signal (common electrode reverse signal) works at 120Hz, so flicker is invisible for human eyes. The service mode "**103 - 0**" can change the FRP signal from 120Hz to 60Hz, and flicker can be seen.

Data value changed from "**0**" to "**1**"

Adjust it after the aging of ten minutes.

After this adjustment, data is changed from "**1**" to "**0**".

10. Colour Correction

Input signal	Internal Signal
Input mode	(N/A)
Input image	(N/A)

1. Enter the service mode.
2. Select group/item no. "**982 - 60**", and the data value changed from "**0**" to "**10**", then automatic adjustment will be done after about 30 sec.
3. After this adjustment completed, group/item no. "**982 - 60**" data value changed from "**10**" to "**0**".

Using the proper computer and "**Projector Service Tool**" software supplied separately.

After the all steps adjusted, check the colour shading.

11. Colour Shading contrast adjustment

Input signal	1080i (RGB)
Input mode	PC
Input image	Brilliant cinema

If the correction of the Color shading adjustment is necessary, please adjust the "Color shading" by using the "**projector Service Tool**" software supplied separately. The color shading correction adjustment for this model should be performed with the whole-gray patterns specified as below.

8-input patterns:

80% gray, 70% gray, 60% gray, 50% gray
40% gray, 30% gray, 20% gray, 15% gray

12. Read/Write of LCD panel gamma data when Main Board replacing

The gamma adjustment data of each LCD panel has been adjusted preciously to much each LCD panel characteristics at factory.

When you replace the Main Board, you need to read out the gamma data stored in the memory IC on the previous board and write down the gamma data into the memory IC on the new board. By this way, the projector is enabled to reproduce the picture which has the properly adjusted gamma characteristic.

Use "**Projector Service Tool**" for Read / Write of the gamma data as follows;

Note on WHITE UNIFORMITY Adjustment

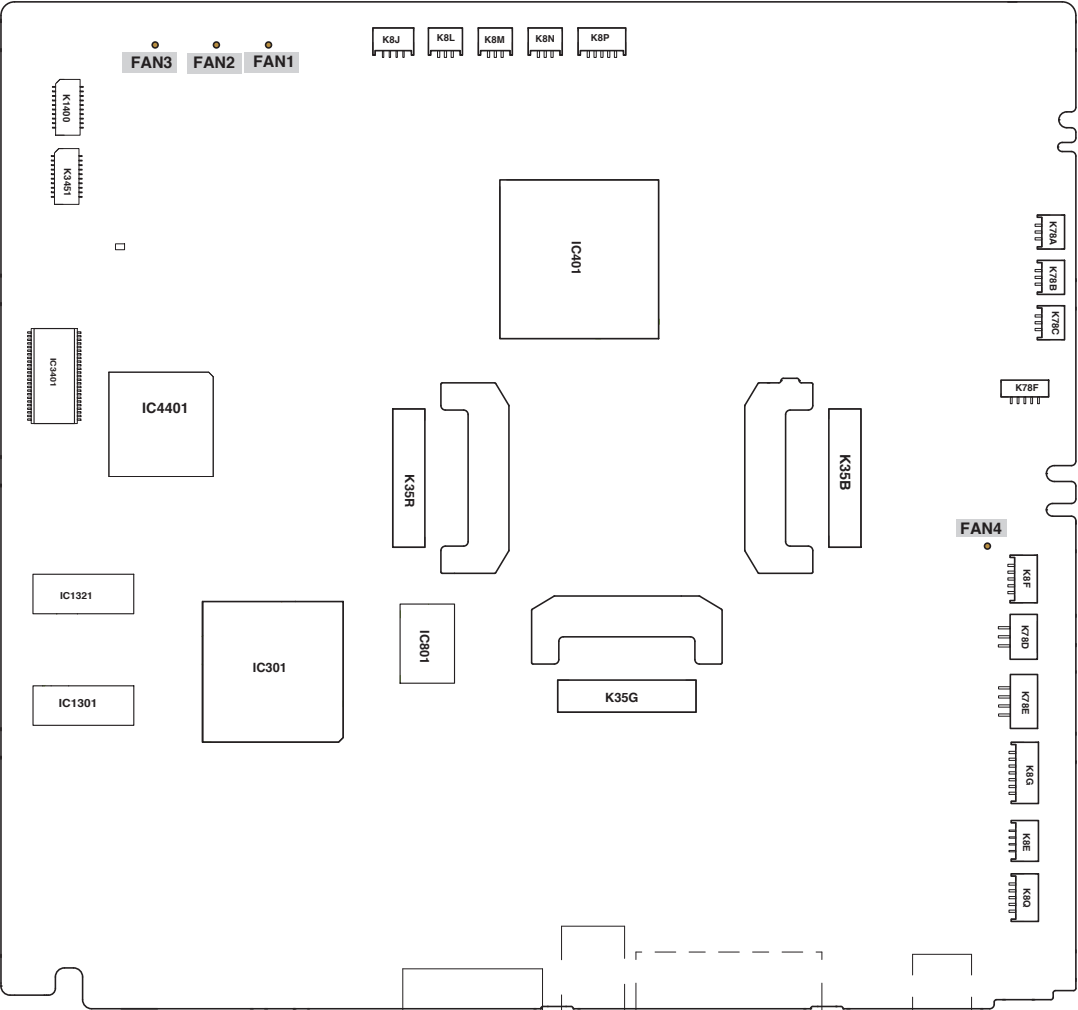
If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "Projector Service Tool" software supplied separately. The software can be ordered as follows;

Projector Service Tool Ver. 4.10
 Service Parts No. 610 337 8787

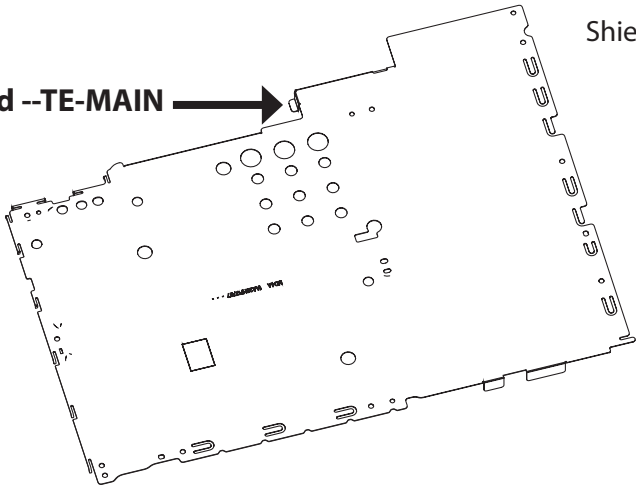
Location of Test Points

MAIN BOARD

The test points are the solder points.
There are no pins.



Test point ground --TE-MAIN



Shield Plate MAIN-top

Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with “※” are required to readjust following to the “Electrical adjustments”. Other items should be used with the initial data value.

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 0 AD Converter (PW392)				
10	SOGTH	3/3/4	0 - 15	PC / Component / SCART SyncOn Green Threould
11	SOGHYSDIS	1/1/0	0 - 1	PC / Component / SCART SyncOn Green Hsysterisis Enable
12	HS1TH	4	0 - 7	H Sync1 Threshold
13	HS0TH	4	0 - 7	H Sync0 Threshold
20	Anti-alias Filter	G1 - 4 G2 - 4 G3 - 6 G4 - 5 G5 - 4 G6 - 4 G7 - 4	0 - 7	Setting Group Group1 : PC (Read Only) Group2 : Sxart (Read Only) Group3 : YCbCr 480i, 575i Group4 : YCbCr 480p, 575p Group5 : YCbCr 720p 60, 720p 50 Group6 : YCbCr 1080i 60, 1080i 50 Group6 : YCbCr 1080p 60, 1080p 50
21	Anti-alias Down sample (Read Only)	G1 - 3 G2 - 3 G3 - 0 G4 - 1 G5 - 3 G6 - 3 G7 - 3	0 - 3	
22	Anti-alias High Freqiency (Read Only)	G1 - 1 G2 - 1 G3 - 3 G4 - 1 G5 - 3 G6 - 3 G7 - 3	0 - 3	
Group: 20 Video Decoder				
10	XCXL Parameter	2	0 - 4	XCXL Leve
11	Sync Amp Low	0x0700	0 - 9999	Minimum sync amplitude threshold for HLOCK 1 to 0 transition
12	Sync Amp High	0x1000	0 - 9999	Minimum sync amplitude threshold for HLOCK 0 to 1 transition
13	Luma Setup Enable	0	0 - 1	7.5IRE Mode (NTSC)
14	Anti-Alias Filter	2	0 - 7	Anti-Alias Filter
15	Anti-Alias Downsample	1	0 - 3	Anti-Alias Downsample
16	Anti-Alias High Frequency	1	0 - 3	Anti-Alias High Frequency
17	CSC Adjust	0x400 / 0x400	0x300 - 0x500	Composite / S-Video - CSC Adjust
20	R3DXL_TB_AMP for PAL	3	0 - 3	R3DXL_TB_AMP for PAL
Group: 40 General				
0	IP Mode	1	0 - 1	Setting of IP Off 0: IP Block non used1: IP Block used IP=0
1	3:2 PullDown Mode	1	1 - 3	bit0 : Global Motion bit1 : Video Motion
2	Detect Film Mode Enable	0	0 - 2	"0 : 2:3pull down & 2:2pull down 1 : 2:3pull down 2 : 2:2pull down"
3	NR Enable for Analog YUV	1	0 - 1	0: Y & UV Detect Noise reduction1: Y Detect TUV Noise reduction
4	NR Enable for Digital YUV	0	0 - 1	Analog YUV : PC/Video/S-Video/ComponentDigital YUV : HDMI <NSYUVEN>
Group: 41 Deinterlacer Setting Progressive Model 1, Film Parameter setting				
0	Motion Adaptive Weight Value	30/30/30	0 - 255	<KDEINT> Composite / S-Video
1	Angle Interpolation Level	4/4/4	0 - 4	0 : Conservative <====> 4 : Aggressive Component / Scart / PC
2	CUE Low Pass Filter Enable	0/0/0	0 - 1	<CUELPFEN> HDMI
Group: 42 Deinterlacer Setting SettingProgressive Model 2, Parameter setting				
0	Motion Adaptive Weight Value	0/0/0	0 - 255	<KDEINT> Composite / S-Video
1	Angle Interpolation Level	2/2/2	0 - 4	0 : Conservative <====> 4 : Aggressive Component / Scart / PC
2	CUE Low Pass Filter Enable	0/0/0	0 - 1	<CUELPFEN> HDMI
Group: 47 Noise Reduction NR ON, Parameter setting				

No.	Adjustment Item	Initial Value	Range	Input source / Description	
0	Noise Pixel Range	1	0 - 2	<NSRANGEY> / <NSRANGEUV>	
1	Noise Region 0	12	0 - 1023	<NSREGIONY0> / <NSREGIONUV0>	
2	Noise Region 1	24	0 - 1023	<NSREGIONY1> / <NSREGIONUV1>	
3	Noise Region 2	40	0 - 1023	<NSREGIONY2> / <NSREGIONUV2>	
4	Noise Gain Level	100	0 - 255	<NSFILTERY**> / <NSFILTERUV**>	
Group: 50 2:2pull down setting					
0	22Film Mode Sensitivityl	4	1 - 5	Film Detection Sensitivity <FILMSTVT22>	
1	22Film Mode Threshold Low	80	0 - 1023	<FILMTHRD22A>	
2	22Film Mode Threshold High	120	0 - 1023	<FILMTHRD22B>	
3	Video Motion Window Start X	10	0 - 255	<VOFSTARX>	Film Mode Detect Range
4	Video Motion Window Stop X	10	0 - 255	<VOFSTOPX>	Film Mode Detect Range
5	Video Motion Window Start Y	10	0 - 255	<VOFSTARY>	Film Mode Detect Range
6	Video Motion Window Stop Y	10	0 - 255	<VOFSTOPY>	Film Mode Detect Range
Group: 51 2:3pull down setting					
0	Global Motion Sensitivity	4	1 - 5	Film Detection Sensitivity <FILMSTVT23>	
1	Video Motion Sensitivity	4	1 - 5	Film Detection Sensitivity <VOFSTVT>	
2	Video Motion Threshold low	120	0 - 1023	<VOFTHRDA>	
3	Video Motion Threshold High	180	0 - 1023	<VOFTHRDB>	
4	Global Motion 23Film Threshold	100	0 - 1023	<FILMTHRD23>	
5	Global Motion Window Start X	10	0 - 255	<GMDST ARX>	Film Mode Detect Range
6	Global Motion Window Stop X	10	0 - 255	<GMDST OPX>	Film Mode Detect Range
7	Global Motion Window Start Y	10	0 - 255	<GMDST ARY>	Film Mode Detect Range
8	Global Motion Window Stop Y	10	0 - 255	<GMDST OPY>	Film Mode Detect Range
Group: 52 Scaling Filter					
0	Scaling Filter		0 - 37	Setting data Group:	
		G01 - 7		Group 01 - Composite	
		G02 - 7		Group 02 - S-Video	
		G03 - 5		Group 03 - Scart	
		G04 - 37		Group 04 - PC	
		G05 - 8		Group 05 - YCbCr/RGB 480i, 575i	
		G06 - 9		Group 06 - YCbCr/RGB 480p, 575p	
		G07 - 3		Group 07 - YCbCr/RGB 720p60, 720p50	
		G08 - 9		Group 08 - YCbCr/RGB 1035i, 1080i60, 1080i50	
		G09 - 5		Group 09 - YCbCr/RGB 1080p	
		G10 - 3		Group 10 - HDMI 480i, 575i	
		G11 - 5		Group 11 - HDMI 480p, 575p	
		G12 - 37		Group 12 - HDMI 720p60, 720p50	
		G13 - 9		Group 13 - HDMI 1035i, 1080i60, 1080i50	
		G14 - 9		Group 14 - HDMI 1080p	
1	Difference Scaling Filterng	0	0 - 20	I/P converter Off Setting (G08, G13)	
Group: 55 LTI / CTI					
0	Video Enhancement Enable	1	0 - 1	VEHEN	Effective Composite / S-Video
1	DLTI Gain	3	0 - 15	DLTIGAIN	Effective Composite / S-Video
2	DLTI Frequency	2	0 - 3	DLTIFREQ	Effective Composite / S-Video
3	Bypass Anti-Alias Filter	0	0 - 1	DTIBYPASSAAL	Effective Composite / S-Video
4	Lower DCTI Frequency	1	0 - 1	LOWERDCTIFREQ	Effective Composite / S-Video
5	DCTI Gain	4	0 - 15	DCTIGAIN	Effective Composite / S-Video
6	DCTI Frequency	0	0 - 3	DCTIFREQ	Effective Composite / S-Video
7	Color Shift Limit	3	0 - 3	COLORSHIFTLMT	Effective Composite / S-Video

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 60 Sub Image				
0	Center Contrast	534/578/534/534/492/492	0 - 1023	Setting Value of Group Group 1 : Composite (Video), S-Video Group 2 : Component Group 3 : Scart Group 4 : RGB Analog (Computer) Group 5 : RGB Digital (Digital) : not used Group 6 : HDMI
1	Center Brightness	512/512/496/496/512/512	0 - 1023	
2	Center Color	512/512/512/512/512/524	0 - 1023	
3	Center Tint	90/90/90/90/90/90	0 - 180	
4	Center Sharpness	16/16/16/16/16/16	16	
5	Center WB Red	512/512/512/512/512/512	0 - 1023	
6	Center WB Green	512/512/512/512/512/512	0 - 1023	
7	Center WB Blue	512/512/512/512/512/512	0 - 1023	
8	Center BB Red	512/512/512/512/512/512	0 - 1023	
9	Center BB Green	512/512/512/512/512/512	0 - 1023	
10	Center BB Blue	512/512/512/512/512/512	0 - 1023	Setting Value = (Menu value - Menu center value) x Alpha / 10+Center Internal range of effective and setting Contrast [Max] 1023 [Min] 0 Brightness [Max] 1023 [Min] 0 Color [Max] 1023 [Min] 0 Tint [Max] 180 [Min] 0 Sharpness [Max] 57 [Min] 0 WB R/G/B [Max] 1023 [Min] 0 BB R/G/B [Max] 1023 [Min] 0
11	Alpha Contrast	60/60/60/60/60/60	0 - 1000	
12	Alpha Brightness	90/90/90/90/90/90	0 - 1000	
13	Alpha Color	140/140/140/140/140/140	0 - 1000	
14	Alpha Tint	10/10/10/10/10/10	0 - 1000	
15	Alpha Sharpness	10/10/10/10/10/10	0 - 1000	
16	Alpha WB Red	40/40/40/40/40/40	0 - 1000	
17	Alpha WB Green	40/40/40/40/40/40	0 - 1000	
18	Alpha WB Blue	40/40/40/40/40/40	0 - 1000	
19	Alpha BB Red	20/20/20/20/20/20	0 - 1000	
20	Alpha BB Green	20/20/20/20/20/20	0 - 1000	
21	Alpha BB Blue	20/20/20/20/20/20	0 - 1000	
Group: 80 FPGA				
0	Software version		-	Read Only
1	Hardware version	-	-	Read Only
2	Horizontal total	-	-	Read Only
3	Vertical total	-	-	Read Only
4	Horizontal resolution	-	-	Read Only
5	Vertical resolution	-	-	Read Only
6				
7	Y range	8	0 - 32	
8	Hue range	15	0 - 30	
9	Gain range	30	0 - 50	
10	Min slope	3	0 - 10	
11	Max slope	18	10 - 30	
12	Convergence	3	1 - 5	
13	Same hue	3	1 - 10	
14	UV normaliz	5	0 - 64	
15	Min Y	0	0 - 127	
16	Max Y	255	128 - 255	
17	Area big change	67	0 - 4095	
18	Area small change	67	0 - 4095	
19	Area change sense	150	0 - 4095	
20	Same Y	24	0 - 63	
21	Conv Y	64	0 - 127	
22	WB Limit 0	4	0 - 255	
23	WB Limit 1	4	0 - 255	
24	WB Limit 2	6	0 - 255	
25	WB Limit 3	7	0 - 255	
26	WB Limit 4	9	0 - 255	
27	WB Limit 8	16	0 - 255	
28	UV DLT	3	0 - 31	

No.	Adjustment Item	Initial Value	Range	Input source / Description	
29	UV Gain	1030	0 - 2047		
30	UV Shift	6180	0 - 32767		
31	WB Limit Out	16	0 - 255		
32	WB Limit In	8	0 - 255		
Group: 100 LCD Panel (EP7120) Factory Adjustment Value					
0	ColshdLebel_R	527	0 - 1023	4 Step : R_Min	8 Step : R_Min
1		553	0 - 1023	4 Step : R_Mid2	8 Step : R_Mid6
2		589	0 - 1023	4 Step : R_Mid1	8 Step : R_Mid5
3		618	0 - 1023	4 Step : R_Max	8 Step : R_Mid4
4		643	0 - 1023	4 Step : N/A	8 Step : R_Mid3
5		667	0 - 1023	4 Step : N/A	8 Step : R_Mid2
6		690	0 - 1023	4 Step : N/A	8 Step : R_Mid1
7		716	0 - 1023	4 Step : N/A	8 Step : R_Max
4	ColshdLebel_G	488	0 - 1023	4 Step : G_Min	8 Step : G_min
5		517	0 - 1023	4 Step : G_Mid2	8 Step : G_mid6
6		554	0 - 1023	4 Step : G_Mid1	8 Step : G_mid5
7		583	0 - 1023	4 Step : G_Max	8 Step : G_Mid4
8		607	0 - 1023	4 Step : N/A	8 Step : G_Mid3
9		627	0 - 1023	4 Step : N/A	8 Step : G_Mid2
10		645	0 - 1023	4 Step : N/A	8 Step : G_Mid1
11		662	0 - 1023	4 Step : N/A	8 Step : G_Max
8	ColshdLebel_B	464	0 - 1023	4 Step : B_Min	8 Step : B_min
9		495	0 - 1023	4 Step : B_Mid2	8 Step : G_Mid6
10		532	0 - 1023	4 Step : B_Mid1	8 Step : B_Mid5
11		561	0 - 1023	4 Step : B_Max	8 Step : B_Mid4
12		585	0 - 1023	4 Step : N/A	8 Step : B_Mid3
13		605	0 - 1023	4 Step : N/A	8 Step : B_Mid2
14		623	0 - 1023	4 Step : N/A	8 Step : B_Mid1
15		640	0 - 1023	4 Step : N/A	8 Step : B_Max
Group: 101 LCD Panel (EP7120) Service					
0	DXOut_R	15	0 - 1023		
1	DXOut_G	15	0 - 1023		
2	DXOut_B	15	0 - 1023		
3	ENBX_R	10	0 - 127		
4	ENBX_G	10	0 - 127		
5	ENBX_B	10	0 - 127		
6	H_Change_Pos	0	0 - 256		
7	DXOutPos	1	0 - 1		
8	SH_Pos	1638	0 - 4095		
9	SH_Pos_R	6	0 - 12	Sample & Hold Signal Posishon Control (R)	
10	SH_Pos_G	6	0 - 12	Sample & Hold Signal Posishon Control (G)	
11	SH_Pos_B	6	0 - 12	Sample & Hold Signal Posishon Control (B)	
12	NRG_Pos	53	0 - 127		
13	NRG_Widht	13	0 - 255		
14	FRP_Pos	9	0 - 255		
15	OSD_Pos	0	0 - 31		
16	OSD_Pth	512	0 - 1023		
17	GammaCtrl	965	0 - 1023		
18	GammaCtrl_Ena	1	0 - 1023	Gamma correction enable 1 : Enable 0 : Disable	
19	GammaCtrl_PreEna	1	0 - 1023	Pre-gamma correction enable 1 : Enable 0 : Disable	
29	REF_GatePos	2	0 - 1023		
21	REF_GateDur	0	0 - 1023		
22	BasePos_R	7	0 - 15		

No.	Adjustment Item	Initial Value	Range	Input source / Description
23	BasePos_G	7	0 - 15	
24	BasePos_B	7	0 - 15	
25	RGB_Adjust	0	0 - 7	
26	RGB_AdjLv	0	0 - 4095	
27	ColshdCtrl	17	0 - 511	
28	ColshdCtrl_Ena	1	0 - 1	Color correction enable 1 : Enable 0 : Disable
29	ColshdCtrl_PreEna	0	0 - 1	Pre-color correction enable 1 : Enable 0 : Disable
30	ColshdPre	0	0 - 255	
31	Ena_H_Sync	1	0 - 1	
32	H_OutPos	11	0 - 2047	
33	OutAreaLv	2048	0 - 4095	
34	H_Sync	6	0 - 2047	
35	V_Sync	4	0 - 255	
36	ENBY_Up01	16	0 - 255	
37	ENBY_Down01	528	0 - 1023	
38	ENBY_Up02	16	0 - 255	
39	ENBY_Down02	528	0 - 1023	
40	GHST_COEF_R_C	0	0 - 2047	
41	GHST_COEF_R_S	128	0 - 255	
42	GHST_COEF_R_E	128	0 - 255	
43	GHST_COEF_G_C	0	0 - 2047	
44	GHST_COEF_G_S	128	0 - 255	
45	GHST_COEF_G_E	128	0 - 255	
46	GHST_COEF_B_C	0	0 - 2047	
47	GHST_COEF_B_S	128	0 - 255	
48	GHST_COEF_B_E	128	0 - 255	
49	FrontCTalkR_Cent	0	0 - 2047	
50	FrontCTalkR_Start	128	0 - 255	
51	FrontCTalkR_End	128	0 - 255	
52	FrontCTalkG_Cent	0	0 - 2047	
53	FrontCTalkG_Start	128	0 - 255	
54	FrontCTalkG_End	128	0 - 255	
55	FrontCTalkB_Cent	0	0 - 2047	
56	FrontCTalkB_Start	128	0 - 255	
57	FrontCTalkB_End	128	0 - 255	
58	OutputLimitMin_R	0	0 - 4095	Data output limiter setting Min (R)
59	OutputLimitMin_G	0	0 - 4095	Data output limiter setting Min (G)
60	OutputLimitMin_B	0	0 - 4095	Data output limiter setting Min (B)
61	OutputLimitMax_R	4095	0 - 4095	Data output limiter setting Man (R) /B-Cinema /C-Cinema/ Natural/ Living
		4095	0 - 4095	Dinamic
62	OutputLimitMax_G	4095	0 - 4095	Data output limiter setting Man (R) /B-Cinema /C-Cinema/ Natural/ Living
		4095	0 - 4095	Dinamic
63	OutputLimitMax_B	4095	0 - 4095	Data output limiter setting Man (R) /B-Cinema /C-Cinema/ Natural/ Living
		4095	0 - 4095	Dinamic
64	DCOffset_R	0	0 - 1023	Normal
		0	0 - 1023	R/L Reverse
65	DCOffset_R_01	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
66	DCOffset_R_02	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
67	DCOffset_R_03	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
68	DCOffset_R_04	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse

No.	Adjustment Item	Initial Value	Range	Input source / Description
69	DCOffset_R_05	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
70	DCOffset_R_06	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
71	DCOffset_R_07	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
72	DCOffset_R_08	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
73	DCOffset_R_09	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
74	DCOffset_R_10	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
74	DCOffset_R_11	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
76	DCOffset_R_12	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
77	DCOffset_R_13	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
78	DCOffset_R_14	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
79	DCOffset_R_15	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
80	DCOffset_R_16	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
81	DCOffset_R_17	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
82	DCOffset_R_18	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
83	DCOffset_R_19	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
84	DCOffset_R_20	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
85	DCOffset_R_21	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
86	DCOffset_R_22	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
87	DCOffset_R_23	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
88	DCOffset_R_24	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
89	DCOffset_G	0	0 - 1023	Normal
		0	0 - 1023	R/L Reverse
90	DCOffset_G_01	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
91	DCOffset_G_02	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
92	DCOffset_G_03	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
93	DCOffset_G_04	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
94	DCOffset_G_05	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
95	DCOffset_G_06	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
96	DCOffset_G_07	0	0 - 2047	Normal

No.	Adjustment Item	Initial Value	Range	Input source / Description
		0	0 - 2047	Normal
97	DCOffset_G_08	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
98	DCOffset_G_09	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
99	DCOffset_G_10	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
100	DCOffset_G_11	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
101	DCOffset_G_12	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
102	DCOffset_G_13	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
103	DCOffset_G_14	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
104	DCOffset_G_15	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
105	DCOffset_G_16	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
106	DCOffset_G_17	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
107	DCOffset_G_18	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
108	DCOffset_G_19	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
109	DCOffset_G_20	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
110	DCOffset_G_21	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
111	DCOffset_G_22	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
112	DCOffset_G_23	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
113	DCOffset_G_24	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
114	DCOffset_B	0	0 - 1023	R/L Reverse
		0	0 - 1023	Normal
115	DCOffset_B_01	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
116	DCOffset_B_02	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
117	DCOffset_B_03	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
118	DCOffset_B_04	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
119	DCOffset_B_05	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
120	DCOffset_B_06	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
121	DCOffset_B_07	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
122	DCOffset_B_08	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal
123	DCOffset_B_09	0	0 - 2047	R/L Reverse
		0	0 - 2047	Normal

No.	Adjustment Item	Initial Value	Range	Input source / Description
124	DCOffset_B_10	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
125	DCOffset_B_11	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
126	DCOffset_B_12	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
127	DCOffset_B_13	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
128	DCOffset_B_14	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
129	DCOffset_B_15	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
130	DCOffset_B_16	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
131	DCOffset_B_17	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
132	DCOffset_B_18	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
133	DCOffset_B_19	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
134	DCOffset_B_20	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
135	DCOffset_B_21	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
136	DCOffset_B_22	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
137	DCOffset_B_23	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
138	DCOffset_B_24	0	0 - 2047	Normal
		0	0 - 2047	R/L Reverse
Group:102 LCD Panel Service (EP19420)				
0	F00_R	648	0 - 4095	Display set 1
1	F00_G	649	0 - 4095	
2	F00_B	648	0 - 4095	
3	F01_R	72	0 - 4095	Display set 2
4	F01_G	72	0 - 4095	
5	F01_B	72	0 - 4095	
6	F03_R	3	0 - 4095	Pre-charge Start timing set
7	F03_G	3	0 - 4095	
8	F03_B	3	0 - 4095	
9	F04_R	1922	0 - 4095	Pre-charge time and Interval timing set
10	F04_G	1922	0 - 4095	
11	F04_B	1922	0 - 4095	
12	F05_R	18	0 - 4095	SEL "H" pulse widht set
13	F05_G	18	0 - 4095	
14	F05_B	18	0 - 4095	
15	F06_R	68	0 - 4095	SEL1 timing set
16	F06_G	68	0 - 4095	
17	F06_B	68	0 - 4095	
18	F07_R	90	0 - 4095	SEL2 timing set
19	F07_G	90	0 - 4095	
20	F07_B	90	0 - 4095	
21	F08_R	112	0 - 4095	SEL3 timing set
22	F08_G	112	0 - 4095	
23	F08_B	112	0 - 4095	

No.	Adjustment Item	Initial Value	Range	Input source / Description
24	F09_R	134	0 - 4095	SEL4 timing set
25	F09_G	134	0 - 4095	
26	F09_B	134	0 - 4095	
27	F0A_R	156	0 - 4095	SEL5 timing set
28	F0A_G	156	0 - 4095	
29	F0A_B	156	0 - 4095	
30	F0B_R	178	0 - 4095	SEL6 timing set
31	F0B_G	178	0 - 4095	
32	F0B_B	178	0 - 4095	
33	F0C_R	200	0 - 4095	SEL7 timing set
34	F0C_G	200	0 - 4095	
35	F0C_B	200	0 - 4095	
36	F0D_R	222	0 - 4095	SEL8 timing set
37	F0D_G	222	0 - 4095	
38	F0D_B	222	0 - 4095	
39	F14_R	145	0 - 4095	VCOMC setting (Factory Used Only)
40	F14_G	145	0 - 4095	
41	F14_B	145	0 - 4095	
42	F15_R	255	0 - 4095	VCOMH setting
43	F15_G	255	0 - 4095	
44	F15_B	255	0 - 4095	
45	F16_R	7	0 - 4095	ENBYO ON timing set
46	F16_G	7	0 - 4095	
47	F16_B	7	0 - 4095	
48	F17_R	258	0 - 4095	ENBYO OFF timing set
49	F17_G	258	0 - 4095	
50	F17_B	258	0 - 4095	
51	F1C_R	516	0 - 4095	Deta input start setting
52	F1C_G	516	0 - 4095	
53	F1C_B	516	0 - 4095	
54	F04_R	256	0 - 4095	SHCLK Input Setting
55	F04_G	256	0 - 4095	
56	F04_B	256	0 - 4095	
57	F0B_R	320	0 - 4095	Pre-charge "+" Voltage set 1
58	F0B_G	320	0 - 4095	
59	F0B_B	320	0 - 4095	
60	F0C_R	320	0 - 4095	Pre-charge "+" Voltage set 2
61	F0C_G	320	0 - 4095	
62	F0C_B	320	0 - 4095	
63	F0D_R	0	0 - 4095	Pre-charge "-" Voltage set 1
64	F0D_G	0	0 - 4095	
65	F0D_B	0	0 - 4095	
66	F0E_R	0	0 - 4095	Pre-charge "-" Voltage set 2
67	F0E_G	0	0 - 4095	
68	F0E_B	0	0 - 4095	
Group:103 LCD Panel Fkicker Adjustment				
0	Flicker Mode	0	0/1	0 : Notmal 1 : Flicker adjustment Mode
Group:200 Option				
0	Logo Select	0	0 - 2	0 : Menu 1 : Disable 2 : For China Logo
1	RS232C Baudrate	0	0 - 1	0 : 19200bps 1: 9600bps
5	PW Debug Command Enable	0	0 - 1	0 : Disable 1 : Enable
10				Factory use only
20				

No.	Adjustment Item	Initial Value	Range	Input source / Description
60	Super Standby Mode	0	0 - 1	0: Normal Standby Mode, 1: Super Standby Mode
61	No signal lamp mode	0	0 - 1	0: Disable 1: Enable
Group:205 SPread Spectrum				
0	Enabl	1	0 - 1	0: Diffusion OFF 1 : Diffusion ON
1	Diffusion rate	100	0 - 300	
2	Modulation frequency	300	200 - 500	
Group:210 Lamp Control				
0	Dimmer SW	0	0 - 1	
1	Manual Control	0	0 - 15	
2	DIMMER_CTRL_LEVEL0	5/7	0 - 255	
3	DIMMER_CTRL_LEVEL1	9/14	0 - 255	
4	DIMMER_CTRL_LEVEL2	14/21	0 - 255	
5	DIMMER_CTRL_LEVEL3	18/28	0 - 255	
6	DIMMER_CTRL_LEVEL4	23/35	0 - 255	
7	DIMMER_CTRL_LEVEL5	27/42	0 - 255	
8	DIMMER_CTRL_LEVEL6	32/49	0 - 255	
9	DIMMER_CTRL_LEVEL7	36/56	0 - 255	
10	DIMMER_CTRL_LEVEL8	41/63	0 - 255	
11	DIMMER_CTRL_LEVEL9	45/70	0 - 255	
12	DIMMER_CTRL_LEVEL10	50/255	0 - 255	
13	DIMMER_CTRL_LEVEL11	54/255	0 - 255	
14	DIMMER_CTRL_LEVEL12	59/255	0 - 255	
15	DIMMER_CTRL_LEVEL13	64/255	0 - 255	
16	DIMMER_CTRL_LEVEL14	69/255	0 - 255	
17	DIMMER_AVERAGE_POINT	4	1 - 16	
18	DIMMER_AVERAGE_DATA	-	0 - 255	
19	DIMMER_LEVEL_AUTO	-	0 - 15	
20	DIMMER_LEVEL_NORMAL	15	0 - 15	
21	DIMMER_LEVEL_ECO	0	0 - 15	
22				
23	VOLTAGE_LEVEL	-	0 - 255	
Group:211 Lamp iris				
0	Lamp Iris Close Limit Value	32	1 - 510	
1	Lamp Iris Open Limit Value	480	1 - 510	
4	Lamp IRIS Ave Time	1	1 - 8	
5	Lamp IRIS Move Step	304	1 - 510	
8	Lamp IRIS SW	0	0 - 1	
9	Lamp IRIS Manual	256	1 - 510	
10	Lamp IRIS Close Rate	40/50/100/80/0	0 - 254	Brilliant / Creative / Natural / Living / Dynamic
12	Lamp IRIS ColorAdj Open Rate	128	0 - 255	
13	Lamp Iris Repeat mode	0	0 - 8	
14	Repeat Mode Close Value	32	1 - 510	
15	Repeat Mode Open Value	480	1 - 510	
Group:212 Costum Gamma Coefficient				
0	Costum Gamma -R step 0	18	1 - 512	
1	Costum Gamma -R step 512	20	1 - 512	
2	Costum Gamma -R step 1024	24	1 - 512	
3	Costum Gamma -R step 1536	26	1 - 512	
4	Costum Gamma -R step 2048	28	1 - 512	
5	Costum Gamma -R step 2560	32	1 - 512	
6	Costum Gamma -R step 3072	36	1 - 512	
7	Costum Gamma -R step 3584	40	1 - 512	

No.	Adjustment Item	Initial Value	Range	Input source / Description
8	Costum Gamma -R step 4096	44	1 - 512	
9	Costum Gamma -G step 0	18	1 - 512	
10	Costum Gamma -G step 512	20	1 - 512	
11	Costum Gamma -G step 1024	24	1 - 512	
12	Costum Gamma -G step 1536	26	1 - 512	
13	Costum Gamma -G step 2048	28	1 - 512	
14	Costum Gamma -G step 2560	32	1 - 512	
15	Costum Gamma -G step 3072	36	1 - 512	
16	Costum Gamma -G step 3584	40	1 - 512	
17	Costum Gamma -G step 4096	44	1 - 512	
18	Costum Gamma -B step 0	18	1 - 512	
19	Costum Gamma -B step 512	20	1 - 512	
20	Costum Gamma -B step 1024	24	1 - 512	
21	Costum Gamma -B step 1536	26	1 - 512	
22	Costum Gamma -B step 2048	28	1 - 512	
23	Costum Gamma -B step 2560	32	1 - 512	
24	Costum Gamma -B step 3072	36	1 - 512	
25	Costum Gamma -B step 3584	40	1 - 512	
26	Costum Gamma -B step 4096	44	1 - 512	
Group:230 DOOR CONTROL				
1	First	200	0 - 2000	Unit : ms
2	Low time	0	0 - 2000	Unit : ms
3	High time	100	0 - 2000	Unit : ms
4	After arrival	500	0 - 2000	Unit : ms
5	Limit	50(=5000ms)	0 - 200	
7	Open count	0	0 - 30000	
8	Close count	0	0 - 30000	
9	reset open counter	1	0 - 1	
10	reset close counter	1	0 - 1	
11	Exhibition	0	0 - 1	
12	Demo Time	22(=2200ms)	0 - 200	
13	Blink time	2(60sec)	0 - 10	
14	Lamp start timing	0	0 - 1	
Group:250 FAN CONTROL				
0	Fan Control Mode 1	0	0 - 2	0 : Normal, 1 : Ceiling, 2 : Highland
1	Fan Control Mode 2	0	0 - 1	0 : Normal, 1 : Forced Highland Mode
2	Fan SW	0	0 - 3	0 : Auto, 1 : Temp. min, 2 : Tepm. max, 3 : Manual
3	Manual Fan1 Voltage	130	0 - 145	
4	Manual Fan2 Voltage	130	0 - 145	
5	Manual Fan3 Voltage	130	0 - 145	
6	Manual Fan4 Voltage	130	0 - 145	
7	Manual Fan5 Duty	500	1 - 510	
8	Fan1 Min Adjust	*22	0 - 255	Fan minimum voltage (3.5V) adjustment
9	Fan2 Min Adjust	*22	0 - 255	
10	Fan3 Min Adjust	*22	0 - 255	
11	Fan4 Min Adjust	*22	0 - 255	
12	Fan1 Max Adjust	*232	0 - 255	Fan max voltage (13.8V) adjustment
13	Fan2 Max Adjust	*232	0 - 255	
14	Fan3 Max Adjust	*232	0 - 255	
15	Fan4 Max Adjust	*232	0 - 255	
16	Fan1 Min Limit	43	30 - 145	
17	Fan2 Min Limit	30	30 - 145	
18	Fan3 Min Limit	40	30 - 145	

No.	Adjustment Item	Initial Value	Range	Input source / Description
19	Fan4 Min Limit	30	30 - 145	
20	Fan5 Min Limit	67	1 - 510	
21	Fan1 Max Limit	138	30 - 145	
22	Fan2 Max Limit	138	30 - 145	
23	Fan3 Max Limit	138	30 - 145	
24	Fan4 Max Limit	138	30 - 145	
25	Fan5 Max Limit	510	1 - 510	
26	Fan1 Min Rpm	105	0 - 4500	
27	Fan2 Min Rpm	510	0 - 6510	
28	Fan3 Min Rpm	105	0 - 4500	
29	Fan4 Min Rpm	510	0 - 6510	
30	Fan5 Min Rpm	300	0 - 6510	
31	Fan1 Max Rpm	4500	510 - 4500	
32	Fan2 Max Rpm	6510	510 - 6510	
33	Fan3 Max Rpm	4500	510 - 4500	
34	Fan4 Max Rpm	6510	510 - 6510	
35	Fan5 Max Rpm	6510	510 - 6510	
		Norm/Ceiling/Highland/Focus		
36	Normal Fan1 Min	1380/1380/1545/1545	510 - 4500	Normal_Temp.-Min
37	Normal Fan2 Min	2220/2220/3420/-	510 - 6510	
38	Normal Fan3 Min	1905/1905/2100/2100	510 - 4500	
39	Normal Fan4 Min	2595/2595/3180/5115	510 - 6510	
40	Normal Fan5 Min	1755/1755/1860/3165	510 - 6510	
41	Normal Fan1 Max	1470/1470/1710/1710	510 - 4500	Normal_Temp.-Max
42	Normal Fan2 Max	2460/2460/3630/-	510 - 6510	
43	Normal Fan3 Max	1905/1905/2100/2100	510 - 4500	
44	Normal Fan4 Max	5115/5115/55115/5115	510 - 6510	
45	Normal Fan5 Max	3165/3165/3165/3165	510 - 6510	
46	Normal TempA Low	28/28/27/-	-5 - 100	Normal_Temp. -sensor A_Control_Start-temp.
47	Normal TempA High	36/36/35/-	-5 - 100	Normal_Temp. -sensor A_Control_End-temp.
48	Normal TempB Low	49/49/52/-	-5 - 100	Normal_Temp. -sensor B_Control_Start-temp.
49	Normal TempB High	54/54/57/-	-5 - 100	Normal_Temp. -sensor B_Control_End-temp.
50	Normal TempC Low	46/46/47/-	-5 - 100	Normal_Temp. -sensor C_Control_Start-temp.
51	Normal TempC High	52/52/51/-	-5 - 100	Normal_Temp. -sensor C_Control_End-temp.
52	Normal TempA Error	44/44/41/-	-5 - 100	Normal_Temp. -sensor A_Shutdown-temp.
53	Normal TempB Error	58/58/62/-	-5 - 100	Normal_Temp. -sensor B_Shutdown-temp.
54	Normal TempC Error	57/57/55/-	-5 - 100	Normal_Temp. -sensor C_Shutdown-temp.
55	Normal TempB-A Error	33/33/40/-	0 - 100	Normal_Temp. -sensor (B-A)_Shutdown-temp.
56	Normal TempC-A Error	26/26/40/-	0 - 100	Normal_Temp. -sensor (C-A)_Shutdown-temp.
57	Eco Fan1 Min	750/750/1110/1110	510 - 4500	Eco_Temp.-Min
58	Eco Fan2 Min	1350/1350/1920/-	510 - 6510	
59	Eco Fan3 Min	1230/1230/1800/1800	510 - 4500	
60	Eco Fan4 Min	2010/2010/2265/4050	510 - 6510	
61	Eco Fan5 Min	1320/1320/1470/2550	510 - 6510	
62	Eco Fan1 Max	1140/1140/1200/1200	510 - 4500	Eco_Temp.-Max
63	Eco Fan2 Max	1485/1485/2010/-	510 - 6510	
64	Eco Fan3 Max	1665/1665/1800/1800	510 - 4500	
65	Eco Fan4 Max	4050/4050/4050/4050	510 - 6510	
66	Eco Fan5 Max	2550/2550/2550/2550	510 - 6510	
67	Eco TempA Low	29/29/26	-5 - 100	Eco_Temp. -sensor A_Control_Start-temp.
68	Eco TempA High	36/36/35	-5 - 100	Eco_Temp. -sensor A_Control_End-temp.
69	Eco TempB Low	53/53/55	-5 - 100	Eco_Temp. -sensor B_Control_Start-temp.
70	Eco TempB High	56/56/59	-5 - 100	Eco_Temp. -sensor B_Control_End-temp.
71	Eco TempC Low	50/50/47	-5 - 100	Eco_Temp. -sensor C_Control_Start-temp.
72	Eco TempC High	55/55/50	-5 - 100	Eco_Temp. -sensor C_Control_End-temp.

No.	Adjustment Item	Initial Value	Range	Input source / Description
73	Eco TempA Error	44/44/41/-	-5 - 100	Eco_Temp. -sensor A_Shutdown-temp.
74	Eco TempB Error	59/59/62/-	-5 - 100	Eco_Temp. -sensor B_Shutdown-temp.
75	Eco TempC Error	59/59/53/-	-5 - 100	Eco_Temp. -sensor C_Shutdown-temp.
76	Eco TempB-A Error	38/38/40/-	0 - 100	Eco_Temp. -sensor (B-A)_Shutdown-temp.
77	Eco TempC-A Error	28/28/40/-	0 - 100	Eco_Temp. -sensor (C-A)_Shutdown-temp.
78	Auto Watt Max Fan1 Min	1360/1380/1545/1545	510 - 4500	Dimmer_Bright-Max_Temp-Min
79	Auto Watt Max Fan2 Min	2220/2220/3420/-	510 - 6510	
80	Auto Watt Max Fan3 Min	1905/1905/2100/2100	510 - 4500	
81	Auto Watt Max Fan4 Min	2955/2955/3180/5115	510 - 6510	
82	Auto Watt Max Fan5 Min	1755/1755/1860/3165	510 - 6510	
83	Auto Watt Max Fan1 Max	1470/1470/1710/1710	510 - 4500	Dimmer_Bright-Max_Temp-Max
84	Auto Watt Max Fan2 Max	2460/2460/3630/-	510 - 6510	
85	Auto Watt Max Fan3 Max	1905/1905/2100/2100	510 - 4500	
86	Auto Watt Max Fan4 Max	5115/5115/5115/5115	510 - 6510	
87	Auto Watt Max Fan5 Max	3165/3165/3165/3165	510 - 6510	
88	Auto Watt Min Fan1 Min	750/750/1110/1110	510 - 4500	Dimmer_Bright-Min_Temp-Min
89	Auto Watt Min Fan2 Min	1350/1350/1920/-	510 - 6510	
90	Auto Watt Min Fan3 Min	1230/1230/1800/1800	510 - 4500	
91	Auto Watt Min Fan4 Min	2010/2010/2265/2265	510 - 6510	
92	Auto Watt Min Fan5 Min	1320/1320/1470/2550	510 - 6510	
93	Auto Watt Min Fan1 Max	1140/1140/1200/1200	510 - 4500	Dimmer_Bright-Min_Temp-Max
94	Auto Watt Min Fan2 Max	1485/1485/2010/-	510 - 6510	
95	Auto Watt Min Fan3 Max	1665/1665/1800/1800	510 - 4500	
96	Auto Watt Min Fan4 Max	4050/4050/4050/4050	510 - 6510	
97	Auto Watt Min Fan5 Max	2550/2550/2550/2550	510 - 6510	
98	Auto TempA Low	29/29/26/-	-5 - 100	Dimmer_Temp. -sensor A_Control_Start-temp.
99	Auto TempA High	36/36/35/-	-5 - 100	Dimmer_Temp. -sensor A_Control_End-temp.
100	Auto TempB Low	53/53/55/-	-5 - 100	Dimmer_Temp. -sensor B_Control_Start-temp.
101	Auto TempB High	56/56/59/-	-5 - 100	Dimmer_Temp. -sensor B_Control_End-temp.
102	Auto TempC Low	50/50/47/-	-5 - 100	Dimmer_Temp. -sensor C_Control_Start-temp.
103	Auto TempC High	55/55/51/-	-5 - 100	Dimmer_Temp. -sensor C_Control_End-temp.
104	Auto TempA Error	44/44/41/-	-5 - 100	Dimmer_Temp. -sensor A_Shutdown-temp.
105	Auto TempB Error	59/59/62/-	-5 - 100	Dimmer_Temp. -sensor B_Shutdown-temp.
106	Auto TempC Error	59/59/55/-	-5 - 100	Dimmer_Temp. -sensor C_Shutdown-temp.
107	Auto TempB-A Error	38/38/40/-	0 - 100	Dimmer_Temp. -sensor (B-A)_Shutdown-temp.
108	Auto TempC-A Error	28/28/40/-	0 - 100	Dimmer_Temp. -sensor (C-A)_Shutdown-temp.
109	Cooling Time	3	0 - 15	0 : always On, 1 : 30sec, 2 : 60sec, 3 : 90sec, ----- 15 : 450sec
110	Temp Error Cooling Time	3	1 - 15	1 : 30sec, 2 : 60sec, 3 : 90 sec --- 15 : 450sec
111	Average Time	1	0 - 10	0 : 10sec, 1 : 30sec, 3 : 90sec, ---- 10 : 300sec
112	Change Normal	0	0 - 1	0 : Normal 1 : Forced lamp Max
113	Dac Change Speed	2	1 - 10	
114	Fan1 Initial Vol	55	0 - 255	
115	Fan2 Initial Vol	40	0 - 255	
116	Fan3 Initial Vol	60	0 - 255	
117	Fan4 Initial Vol	40	0 - 255	
118	Fan5 Initial Duty	113	1 - 510	
119	Fan Keep Time	15	0 - 180	
120	Fan Min Keep Time	60	0 - 180	
121	Shutdown Temp A	15	0 - 100	
122	Shutdown Temp B	20	0 - 100	
123	Shutdown Temp C	20	0 - 100	
124	Shutdown Temp B-A	20	0 - 100	
125	Shutdown Temp C-A	20	0 - 100	
126	Shutdown Time A	20	0 - 30	
127	Shutdown Time B	10	0 - 30	

No.	Adjustment Item	Initial Value	Range	Input source / Description
128	Shutdown Time C	10	0 - 30	
129	Shutdown Time B-A	20	0 - 30	
130	Shutdown Time C-A	20	0 - 30	
131	Control Curve Change Time	1	0 - 10	
132	Lamp Monitor SW	0	0 - 1	0 : Off 1 : On
133	Lamp Voltage	- - -	30 - 90	Read only
134	Lamp Vol Threshold	60	50 - 90	
135	Fan Speed Gain	300	0 - 1500	
136	Lamp Keep Time	90	0 - 255	
137	Temp Test Mode	0	0 - 12	
138	Fan Cooling Vol Up	0	0 - 145	
139	Fan Min. Keep Time	5	0 - 15	
Group :260 AUTO CALIBRATION				
0	Execute Calibration	0	0 - 1	Auto calibration will execute when the value changes. (For PC white 100% Adjustment.)
1	Loop Count	8	1 - 30	Maximum times of calibration
2	Auto Status	0	0 / 1 / 9	Read only Auto calibration result 0: End correctly 1 : On Adjustment 9 : End at Error
3	AutoWait	3	1 - 20	Wait value
4	CHECK - Tolerance	4	1 - 255	Offset Final check Tolerance
5	Time out wait	20	1 - 255	Wait time (sec)
Group:261 AUTO CALIBRATION (RGB)				
0	OFFSET AREA H START	975	0 - 1000	Black Level H
1	OFFSET AREA V START	500	0 - 1000	Black Level V
2	OFFSET AREA V START	25	0 - 1000	White Level H
3	GAIN AREA V START	500	0 - 1000	White Level V
4	Image AREA H WIDTH	13	0 - 4095	White / Black Level Width
5	Image AREA V HIGHT	9	0 - 4095	White / Black Level Hight
6	OFFSET Target	20	0 - 1023	Black Level Adjustment Target Value
7	OFFSET Tolerance	1	1 - 1023	Black Level Adjustment Tolerance
8	Gain Target	955	0 - 1023	White Level Adjustment Target Value
9	GAIN Tolerance	1	1 - 1023	White Level Adjustment Tolerance
10	Image Level Tolerance	2	1 - 255	Image Level Tolerance
Group:262 AUTO CALIBRATION (CVBS / S-VIDEO)				
0	Y Image Area Start X	20	0 - 1000	
1	Y Image Area Start Y	200	0 - 1000	
6	Image Area H Width	8	0 - 4095	
7	Image Area V Hight	8	0 - 4095	
8	Y Target Level	875	0 - 1023	
11	Gain Tolerance	1	1 - 255	
12	Image Level Tolerance	2	1 - 255	
Group:264 AUTO CALIBRATION (YCbCr)				
0	Y-OFFSET AREA H START	925	0 - 1000	
1	Y-OFFSET AREA V STAR	500	0 - 1000	
2	CB - OFFSET AREA H START	925	0 - 1000	
3	CB - OFFSET AREA V START	500	0 - 1000	
4	CR - OFFSET AREA H START	925	0 - 1000	
5	CR - OFFSET AREA V START	500	0 - 1000	
6	Y - GAIN AREA H START	50	0 - 1000	
7	Y - GAIN AREA V START	500	0 - 1000	
8	CB - GAIN AREA H START	800	0 - 1000	
9	CB - GAIN AREA V START	500	0 - 1000	
10	CR - GAIN AREA H START	700	0 - 1000	

No.	Adjustment Item	Initial Value	Range	Input source / Description
11	CR - GAIN AREA V START	500	0 - 1000	
12	Image AREA H WIDTH	13	0 - 4095	
13	Image AREA V HIGHT	9	0 - 4095	
14	Y - OFFSET TARGET	4	0 - 1023	
15	CB OFFSET TARGET	512	0 - 1023	
16	CR OFFSET TARGET	512	0 - 1023	
17	Y - GAIN TARGET	810	0 - 1023	
18	CB - GAIN TARGET	894	0 - 1023	
19	CR - GAIN TARGET	894	0 - 1023	
20	OFFSET Tolerance	1	1 - 255	
21	GAIN Tolerance	1	1 - 255	
22	Image Level Tolerance	3	1 - 255	
Group:500 CONPOSITE (NTSC)				
1	Disp Dots	698	0 - 4095	
2	H Back Porch	11	0 - 4095	
3	V Back Porch	8	0 - 4095	
4	Disp Line	478	0 - 4095	
Group:501 CONPOSITE (PAL)				
1	Disp Dots	690	0 - 4095	
2	H Back Porch	18	0 - 4095	
3	V Back Porch	10	0 - 4095	
4	Disp Line	560	0 - 4095	
Group:502 CONPOSITE (SECAM)				
1	Disp Dots	688	0 - 4095	
2	H Back Porch	15	0 - 4095	
3	V Back Porch	6	0 - 4095	
4	Disp Line	568	0 - 4095	
Group:510 SCART (480i)				
1	Disp Dots	688	0 - 4095	
2	H Back Porch	124	0 - 4095	
3	V Back Porch	40	0 - 4095	
4	Disp Line	464	0 - 4095	
Group:511 SCART (575i)				
1	Disp Dots	672	0 - 4095	
2	H Back Porch	147	0 - 4095	
3	V Back Porch	52	0 - 4095	
4	Disp Line	548	0 - 4095	
Group : 520 YCbCr (480i)				
0	Total Dots	858	0 - 4095	
1	Disp Dots	702	0 - 4095	
2	H Back Porch	129	0 - 4095	
3	V Back Porch	31	0 - 4095	
4	Disp Line	481	0 - 4095	
Group : 521 YCbCr (575i)				
0	Total Dots	864	0 - 4095	
1	Disp Dots	688	0 - 4095	
2	H Back Porch	145	0 - 4095	
3	V Back Porch	44	0 - 4095	
4	Disp Line	570	0 - 4095	

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group : 522 YCbCr (480P)				
0	Total Dots	858	0 - 4095	
1	Disp Dots	714	0 - 4095	
2	H Back Porch	124	0 - 4095	
3	V Back Porch	34	0 - 4095	
4	Disp Line	483	0 - 4095	
Group : 523 YCbCr (575P)				
0	Total Dots	864	0 - 4095	
1	Disp Dots	714	0 - 4095	
2	H Back Porch	134	0 - 4095	
3	V Back Porch	42	0 - 4095	
4	Disp Line	576	0 - 4095	
Group : 524 YCbCr (720P - 60)				
0	Total Dots	1650	0 - 4095	
1	Disp Dots	1280	0 - 4095	
2	H Back Porch	297	0 - 4095	
3	V Back Porch	23	0 - 4095	
4	Disp Line	720	0 - 4095	
Group : 525 YCbCr (720P - 50)				
0	Total Dots	1980	0 - 4095	
1	Disp Dots	1280	0 - 4095	
2	H Back Porch	296	0 - 4095	
3	V Back Porch	25	0 - 4095	
4	Disp Line	720	0 - 4095	
Group : 526 YCbCr (1080i - 60)				
0	Total Dots	2200	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	233	0 - 4095	
3	V Back Porch	36	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 527 YCbCr (1080i - 50)				
0	Total Dots	2640	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	233	0 - 4095	
3	V Back Porch	36	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 529 YCbCr (1080P - 60)				
0	Total Dots	2200	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	231	0 - 4095	
3	V Back Porch	38	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 530 YCbCr (1080P - 50)				
0	Total Dots	2640	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	231	0 - 4095	
3	V Back Porch	38	0 - 4095	
4	Disp Line	1080	0 - 4095	

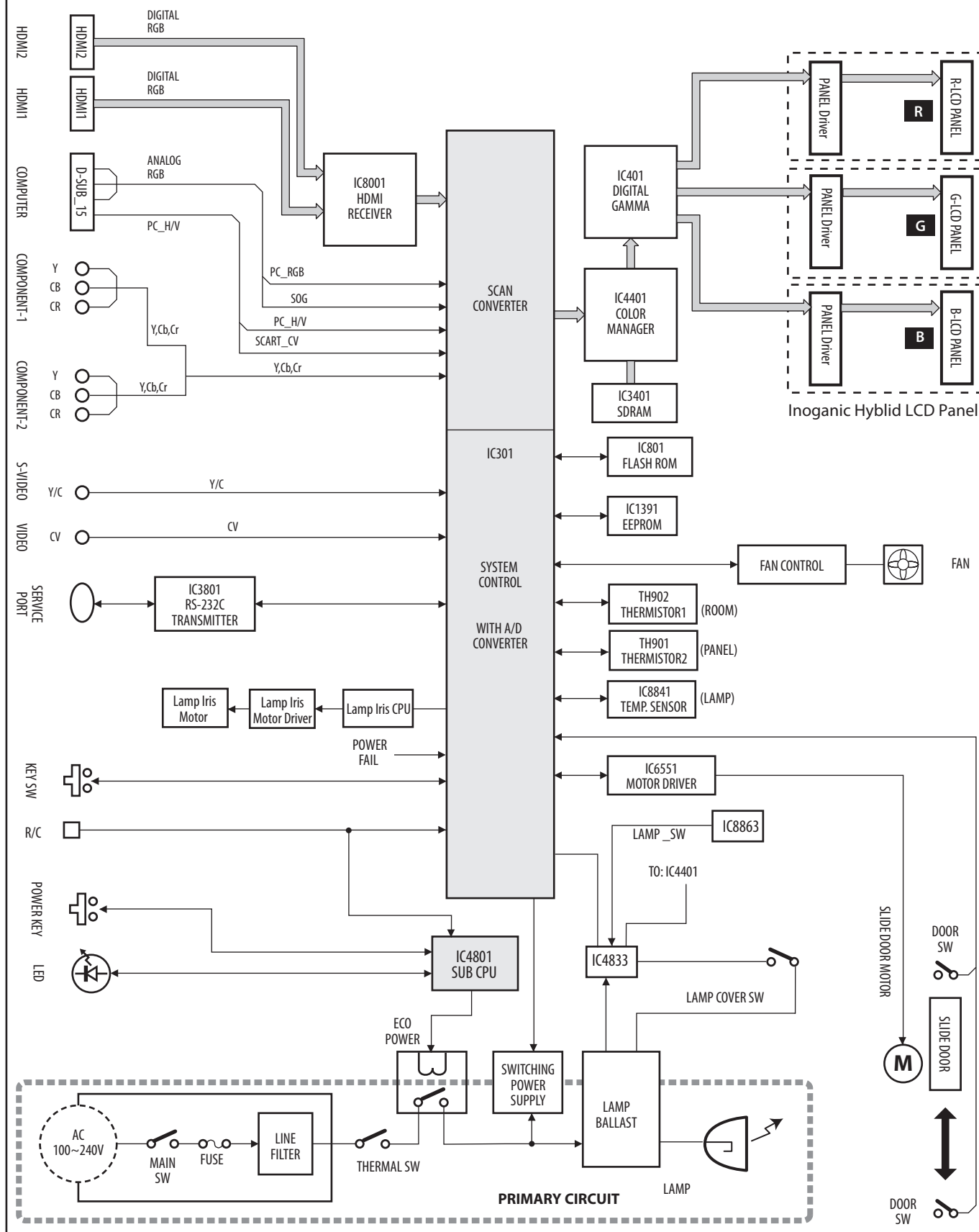
No.	Adjustment Item	Initial Value	Range	Input source / Description
Group : 540 RGB Video (480i)				
0	Total Dots	956	0 - 4095	
1	Disp Dots	784	0 - 4095	
2	H Back Porch	167	0 - 4095	
3	V Back Porch	40	0 - 4095	
4	Disp Line	484	0 - 4095	
Group : 541 RGB Video (575i)				
0	Total Dots	958	0 - 4095	
1	Disp Dots	768	0 - 4095	
2	H Back Porch	184	0 - 4095	
3	V Back Porch	48	0 - 4095	
4	Disp Line	570	0 - 4095	
Group : 543 RGB Video (575P)				
0	Total Dots	984	0 - 4095	
1	Disp Dots	812	0 - 4095	
2	H Back Porch	153	0 - 4095	
3	V Back Porch	49	0 - 4095	
4	Disp Line	576	0 - 4095	
Group : 544 RGB Video (720P - 60)				
0	Total Dots	1650	0 - 4095	
1	Disp Dots	1280	0 - 4095	
2	H Back Porch	298	0 - 4095	
3	V Back Porch	25	0 - 4095	
4	Disp Line	720	0 - 4095	
Group : 545 RGB Video (720P - 50)				
0	Total Dots	1980	0 - 4095	
1	Disp Dots	1280	0 - 4095	
2	H Back Porch	296	0 - 4095	
3	V Back Porch	25	0 - 4095	
4	Disp Line	720	0 - 4095	
Group : 546 RGB Video (1080i - 60)				
0	Total Dots	2200	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	234	0 - 4095	
3	V Back Porch	40	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 547 RGB Video (1080i - 50)				
0	Total Dots	2640	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	233	0 - 4095	
3	V Back Porch	40	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 549 RGB Video (1080P - 60)				
0	Total Dots	2200	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	230	0 - 4095	
3	V Back Porch	41	0 - 4095	
4	Disp Line	1080	0 - 4095	

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group : 550 RGB Video (1080P - 50)				
0	Total Dots	2640	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	229	0 - 4095	
3	V Back Porch	41	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 551 RGB Video (1080P - 30)				
0	Total Dots	2200	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	234	0 - 4095	
3	V Back Porch	41	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 552 RGB Video (1080P - 25)				
0	Total Dots	2640	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	234	0 - 4095	
3	V Back Porch	41	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 553 RGB Video (1080P - 24)				
0	Total Dots	2750	0 - 4095	
1	Disp Dots	1920	0 - 4095	
2	H Back Porch	234	0 - 4095	
3	V Back Porch	41	0 - 4095	
4	Disp Line	1080	0 - 4095	
Group : 930 Auto Gamma				
0	GAM_CALC_STATUS	0	0 - 1	Auto gamma Adjustment Result
Group : 982 Auto Gamma Adjustment				Parameters Setting
0	Brilliant Cinema : LVL_USE	65	1 - 999	x 0.01
1	Brilliant Cinema : W_SXY_0	304	0 - 999	x 0.001
2	Brilliant Cinema : W_SXY_1	320	0 - 999	x 0.001
3	Brilliant Cinema : B_SXY_0	304	0 - 999	x 0.001
4	Brilliant Cinema : B_SXY_1	320	0 - 999	x 0.001
5	Brilliant Cinema : LIMIT_CONTRAST	600	100 - 5000	
6	Brilliant Cinema : CAL_CONT	---	---	Result Contrast Read Only
7	Brilliant Cinema : CONT_USE	700	100 - 5000	x 0.001
8	Brilliant Cinema : VT_AXIS_IS_V	0	0 - 1	
9	Brilliant Cinema : VT_USED_R	100	0 - 100	x 0.01
10	Brilliant Cinema : VT_USED_G	100	0 - 100	x 0.01
11	Brilliant Cinema : VT_USED_B	100	0 - 100	x 0.01
12	Creative Cinema : LVL_USE	56	1 - 999	x 0.01
13	Creative Cinema : W_SXY_0	313	0 - 999	x 0.001
14	Creative Cinema : W_SXY_1	329	0 - 999	x 0.001
15	Creative Cinema : B_SXY_0	313	0 - 999	x 0.001
16	Creative Cinema : W_SXY_1	329	0 - 999	x 0.001
17	Creative Cinema : LIMIT_CONTRAST	450	100 - 5000	
18	Creative Cinema : CAL_CONT	---	---	Result Contrast Read Only
19	Creative Cinema : CONT_USE	700	100 - 5000	x 0.001
20	Creative Cinema : VT_AXIS_IS_V	0	0 - 1	
21	Creative Cinema : VT_USED_R	100	0 - 100	
22	Creative Cinema : VT_USED_G	100	0 - 100	x 0.01

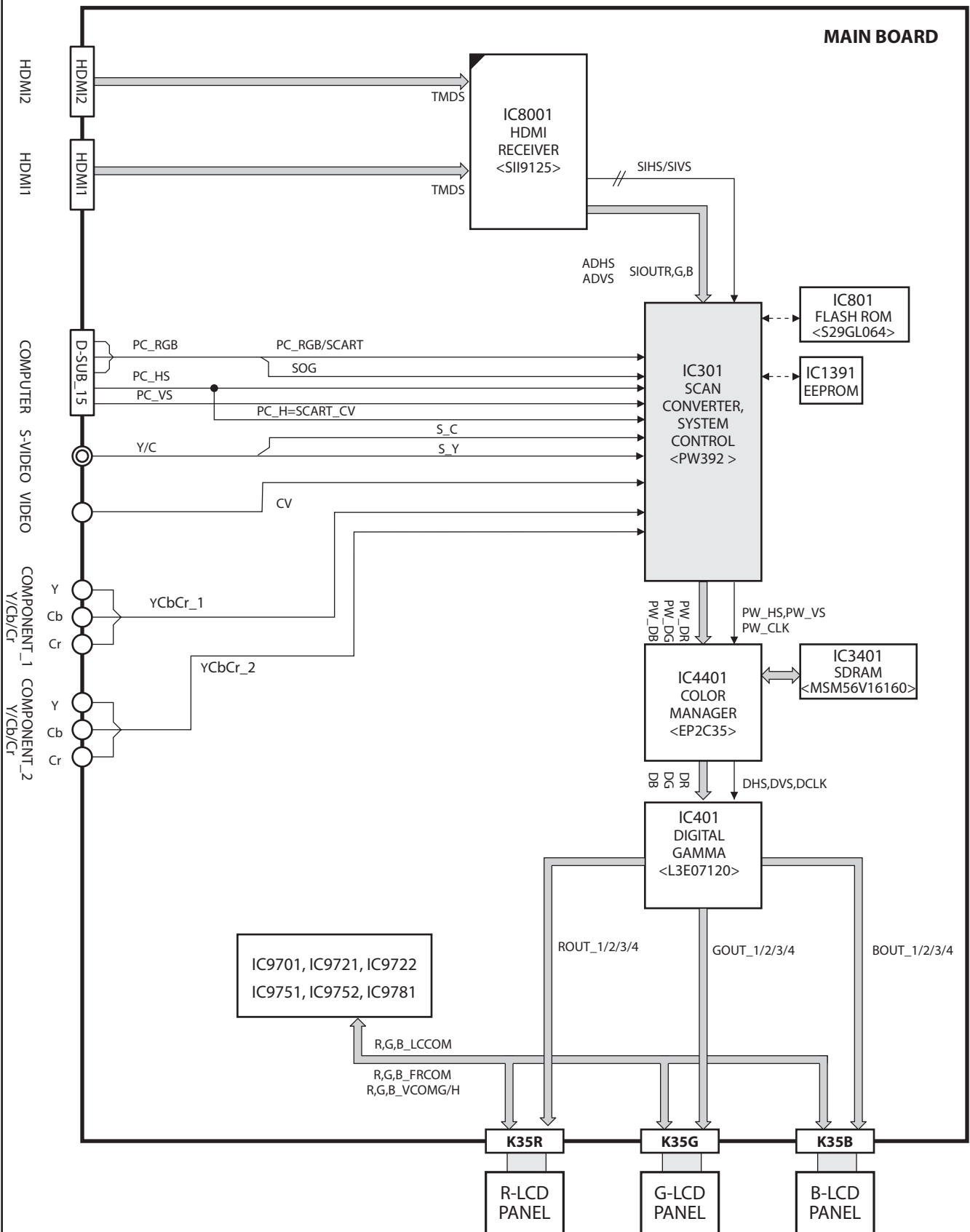
No.	Adjustment Item	Initial Value	Range	Input source / Description
23	Creative Cinema :VT_USED_B	100	0 - 100	x 0.01
24	Natural :LVL_USE	65	1 - 999	x 0.01
25	Natural :W_SXY_0	300	0 - 999	x 0.001
26	Natural :W_SXY_1	310	0 - 999	x 0.001
27	Natural :B_SXY_0	300	0 - 999	x 0.001
28	Natural :B_SXY_1	310	0 - 999	x 0.001
29	Natural :LIMIT_CONTRAST	600	100 - 5000	
30	Natural :CAL_CONT	---	---	Result Contrast Read Only
31	Natural :CONT_USE	700	100 - 5000	x 0.001
32	Natural :VT_AXIS_IS_V	0	0 - 1	
33	Natural :VT_USED_R	100	0 - 100	x 0.01
34	Natural :VT_USED_G	100	0 - 100	x 0.01
35	Natural :VT_USED_B	100	0 - 100	x 0.01
36	Living :LVL_USE	75	1 - 999	x 0.01
37	Living :W_SXY_0	285	0 - 999	x 0.001
38	Living :W_SXY_1	315	0 - 999	x 0.001
39	Living :B_SXY_0	285	0 - 999	x 0.001
40	Living :B_SXY_1	315	0 - 999	x 0.001
41	Living :LIMIT_CONTRAST	700	100 - 5000	
42	Living :CAL_CONT	---	---	Result Contrast Read Only
43	Living :CONT_USE	700	100 - 5000	x 0.001
44	Living :VT_AXIS_IS_V	0	0 - 1	
45	Living :VT_USED_R	100	0 - 100	x 0.01
46	Living :VT_USED_G	100	0 - 100	x 0.01
47	Living :VT_USED_B	100	0 - 100	x 0.01
48	Dynamic :LVL_USE	100	1 - 999	x 0.01
49	Dynamic :W_SXY_0	0	0 - 999	x 0.001 : Gamma Through
50	Dynamic :W_SXY_1	0	0 - 999	x 0.001
51	Dynamic :B_SXY_0	0	0 - 999	x 0.001
52	Dynamic :B_SXY_1	0	0 - 999	x 0.001
53	Dynamic :LIMIT_CONTRAST	5000	100 - 5000	
54	Dynamic :CAL_CONT	---	---	Result Contrast Read Only
55	Dynamic :CONT_USE	1000	100 - 5000	x 0.001
56	Dynamic :VT_AXIS_IS_V	0	0 - 1	
57	Dynamic :VT_USED_R	100	0 - 100	x 0.01
58	Dynamic :VT_USED_G	100	0 - 100	x 0.01
59	Dynamic :VT_USED_B	100	0 - 100	x 0.01
60	Auto Gamma CALC	0	1 - 10	Start the auto-calculation, change data value 10

Chassis Block Diagram

Chassis Overview



Video signal processing circuit and LCD panel driving circuit



The Main Board schematic diagram illustrates the internal components and their interconnections. Key components include:

- IC301 SYSTEM CONTROL <PW392>**: The central microcontroller managing system operations.
- IC8841 TEMP. SENSOR**: Monitors temperature via the S3.3VPW line.
- IC8001 HDMI RECEIVER**: Interfaces with the SCL1/SDA1 bus.
- IC1391 EEPROM**: Provides non-volatile storage.
- FAN CONTROL**: Manages fan speeds based on FAN_CONT0-3 and FAN_SW signals.
- IC401 DIGITAL GAMMA**: Controls the digital gamma for the display.
- IC801 FLASH ROM** and **IC4401 COLOR MANAGER**: Handle memory and color processing.
- IC5701 IRIS CPU** and **IC5731 MOTOR DRIVE**: Control the iris and its motor.
- IC6551 MOTOR DRIVER**: Controls the door motor.
- IC4801 PIC <PIC16F819>**: Manages power and system status (PIC_POWER_LED, PIC_READY_LED, PW_POWER_SW).
- IC4833**: A logic component involved in the RX_LAMP, TX_LAMP, and LAMP_SW control.
- IC3801 RS232C**: Manages the SERVICE PORT communication.
- TH902** and **TH901**: Temperature sensors for the system.

The diagram also shows various input/output ports and connectors, including:

- POWER**: Includes PC103 and PC101 photo couplers, a THERMAL SW (SW902), and a RELAY SW (RL1951).
- LAMP IRIS MOTOR** and **DOOR MOTOR**: Motors for the iris and door mechanisms.
- WARNING LED**, **LAMP_REP LED**, **POWER LED**, and **READY LED**: Status indicators.
- R/C BOARD**: Includes an R/C RECEIVER.
- LAMP BALLAST**: Controls the RX_LAMP and TX_LAMP.
- LAMP SW BOARD**: Includes a LAMP COVER SW (SW8803).
- DOOR SW_B BOARD** and **DOOR SW_A BOARD**: Control the door's open/close status.

● Description of System control circuit

Remote control

R/C signal is sent to pin 292 of IC301(Main CPU) and also sent to pin 20 of IC4801(Sub CPU).

Thermal switch

There is the thermal switch (SW902) above the lamp holder to prevent the internal abnormal temperature rising. If the internal temperature reaches near 100°C, the switch will be opened and the lamp operation will be stopped.

Remark;

The thermal switch is not reset to normal automatically even if the internal temperature becomes normal, so in this case you have to reset it manually.

Lamp cover switch

If the lamp cover is not fixed securely, the lamp cover switch(SW8803) will be open, and LAMP_SW signal will be shut off automatically and the lamp operation will be stopped.

Temperature sensor

The projector provides the temperature sensors "TH901", "TH902" and "IC8841" to prevent the internal temperature rising abnormally and to control the cooling fans. (refer to "Fan control circuit" for detail)

If the internal temperature rising abnormally over the threshold value, the IC301 shuts down after cooling.

Service port

The mini DIN-8 pin jack is used for service the projector with RS-232C. The RS-232C Rx/Tx signals are connected to pins 291 and 386 of IC301 via IC3801(RS-232C RECEIVER/DRIVER). The main program and data are stored in IC801(FLASH ROM). The program can be replaced with new one by specified software "FlashUpgrader".

Note;

The service port is factory default set "**OFF**".

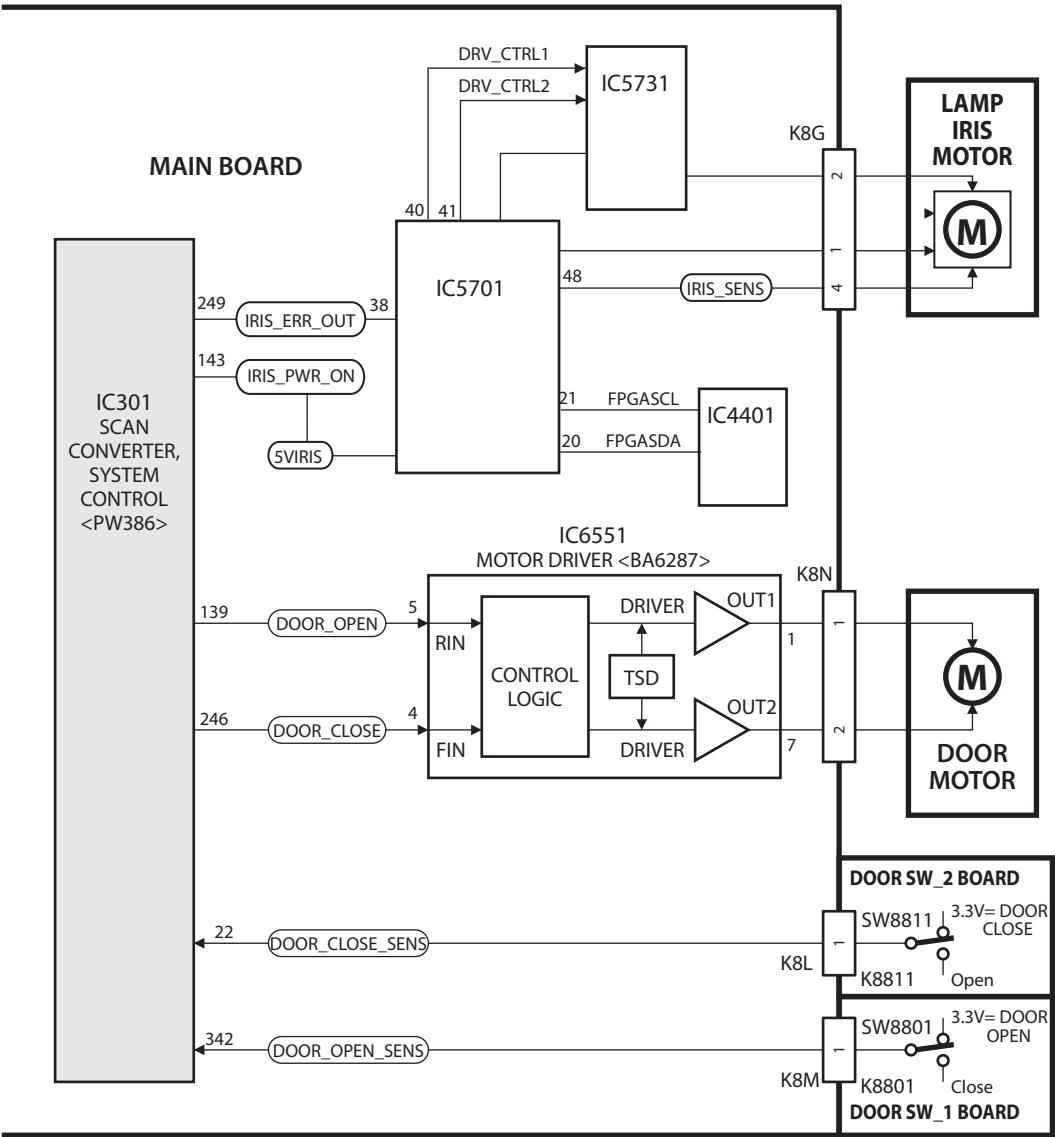
When the service port is used, the item of the service port of the setting menu is changed to "**ON**".

(The service port cannot be used in the state of "**OFF**".)

Change to "**OFF**" after servicing ends.

(Power consumption when standing by increases in the state of "**ON**".)

Motor driving circuit



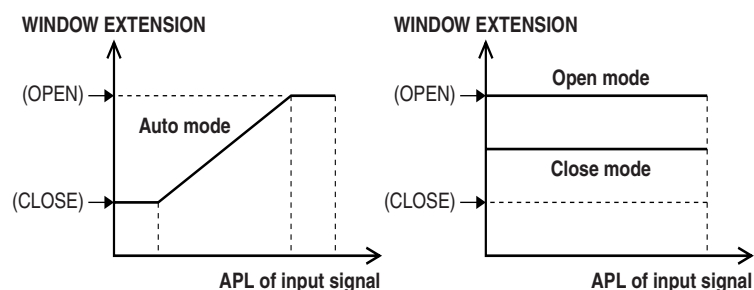
MOTOR FUNCTION TABLE of BA6287

FIN	RIN	OUT2	OUT1	OUTPUT MODE	FUNCTION
H	L	L	H	FORWARD MODE	OPEN
L	H	H	L	REVERSE MODE	CLOSE
H	H	L	L	BRAKE MODE	BRAKE
L	L	OPEN	OPEN	STAND-BY MODE	STAND-BY

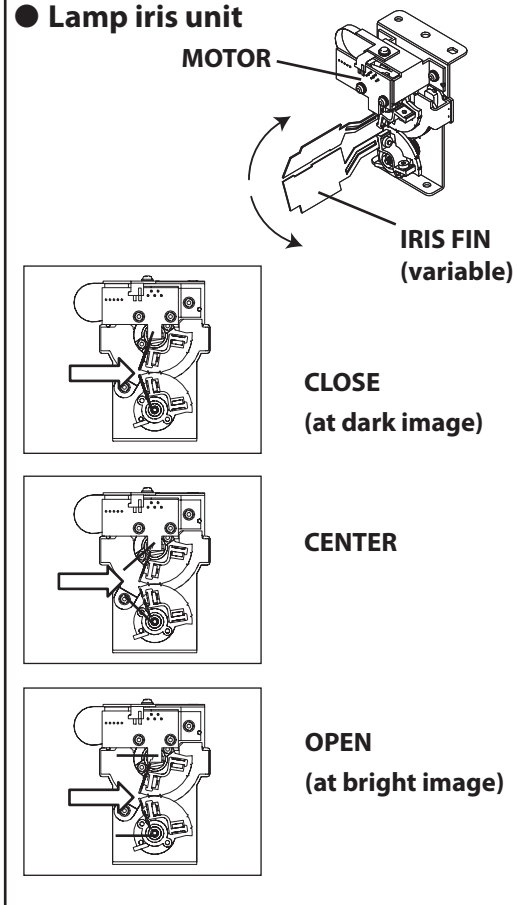
● Description of Motor driving circuit

Lamp Iris Motor

The lamp iris unit is located in the front of lamp. It is controlled by the IRIS_PWR_ON signal, which is varied based upon the average luminance level of the input image signal, from pin 143 of IC301. When the image becomes darker, the lamp iris will be closed, and when the image becomes brighter, it will be opened.



● Lamp iris unit



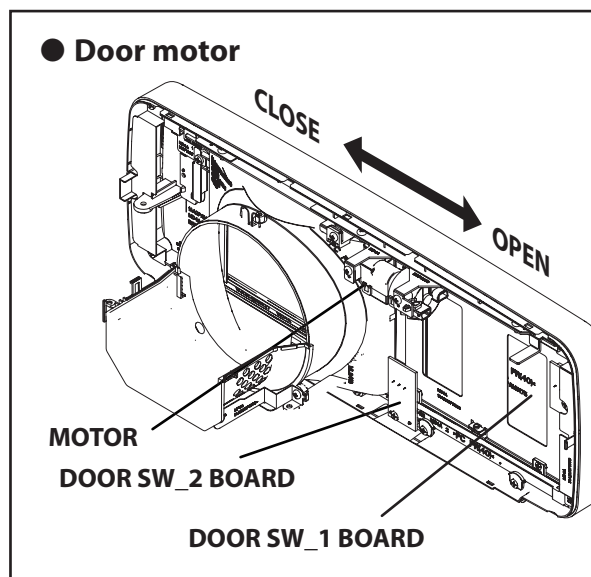
Door Motor

The projector provides 2 door switches. The door switch-1 (SW8801 on DOOR SW_1 board) turns ON, when the slide shutter is opened. The door switch-2 (SW8811 on DOOR SW_2 board) turns ON, when the slide shutter is closed.

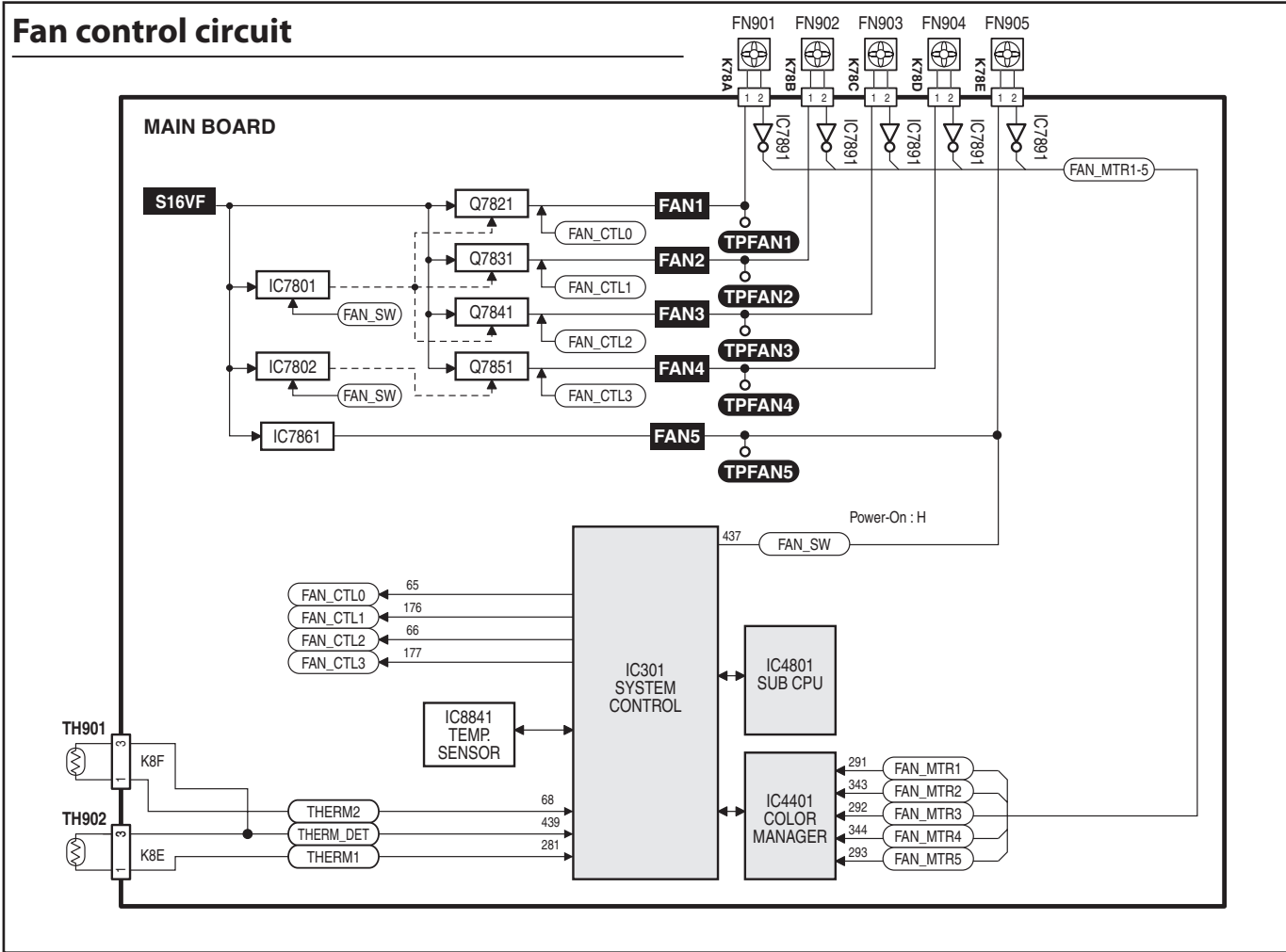
If the slide shutter is half-open or close, the lamp does not light. When turning the projector on, the lamp starts light after SW8801 turning on.

If the slide shutter error occurs during operation, the POWER indicator will blink orange and the projector will go to stand-by mode after cooling.

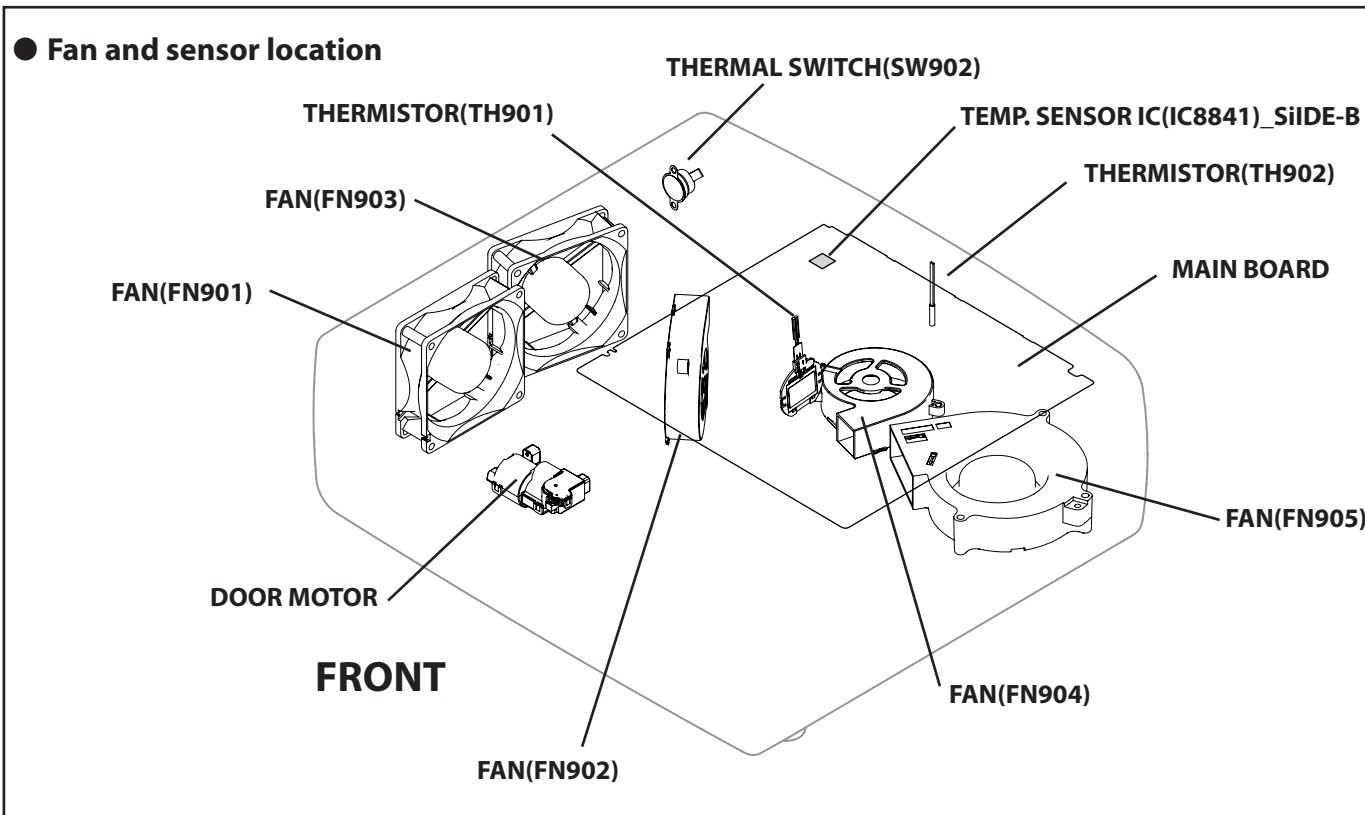
● Door motor



Fan control circuit



Fan and sensor location



● Description of Fan control circuit

Fan control circuit

The Fan drive power supplies "FAN1", "FAN2", "FAN3", "FAN4" and "FAN5" are generated from "S16VF". Each power supply drives fans as follow;

FAN1FN901 for power and ballast exhaust

FAN2FN902 for lamp cooling

FAN3FN903 for lamp exhaust

FAN4FN904 for intake and panel cooling

FAN5FN905 for intake and panel cooling

The fan spinning speed is controlled by "FAN_CTL0", "FAN_CTL1", "FAN_CTL2" and "FAN_CTL3" from pins 65,176,66 and 177 of IC301.

Power failure protection of Fan

The alarm output signals(PWM signals) from the fans are connected to IC4401(Color Manager) and IC4401 monitors the fan spinning speed for safety.

When an abnormality occurs on any one of the fans, for example the fan spinning speed is lower than the specified speed, IC301 shuts down the projector. If a fan connector is not connected firmly, IC301 also shuts down the projector.

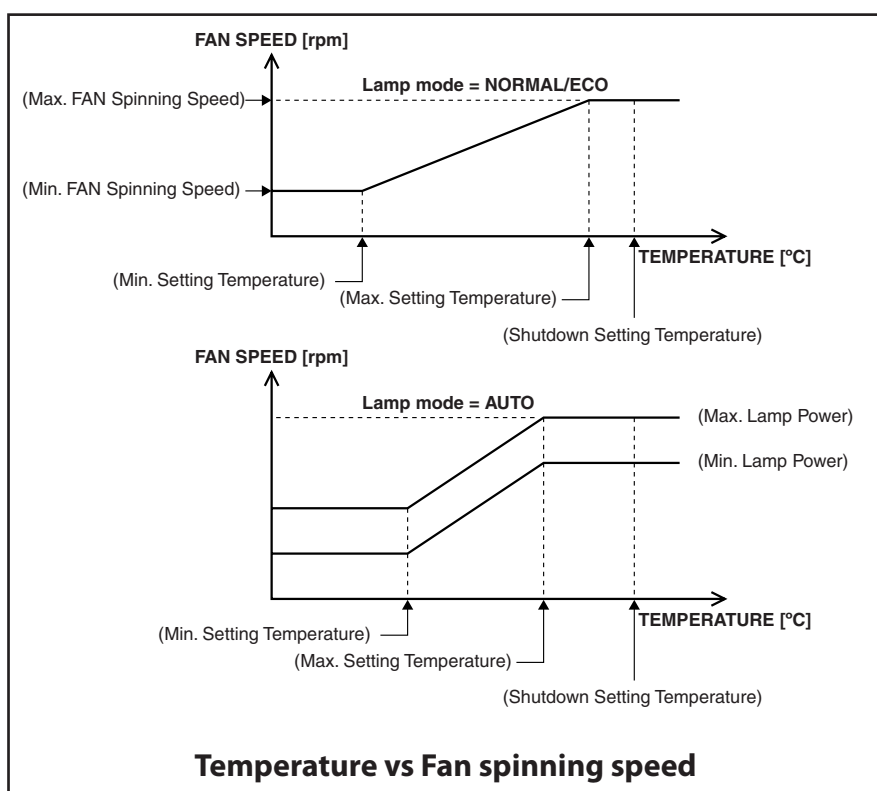
Temperature sensor for Fan control

TempA - TH902 around the intake fan "FN904"and "FN905" for outer temperature of the projector

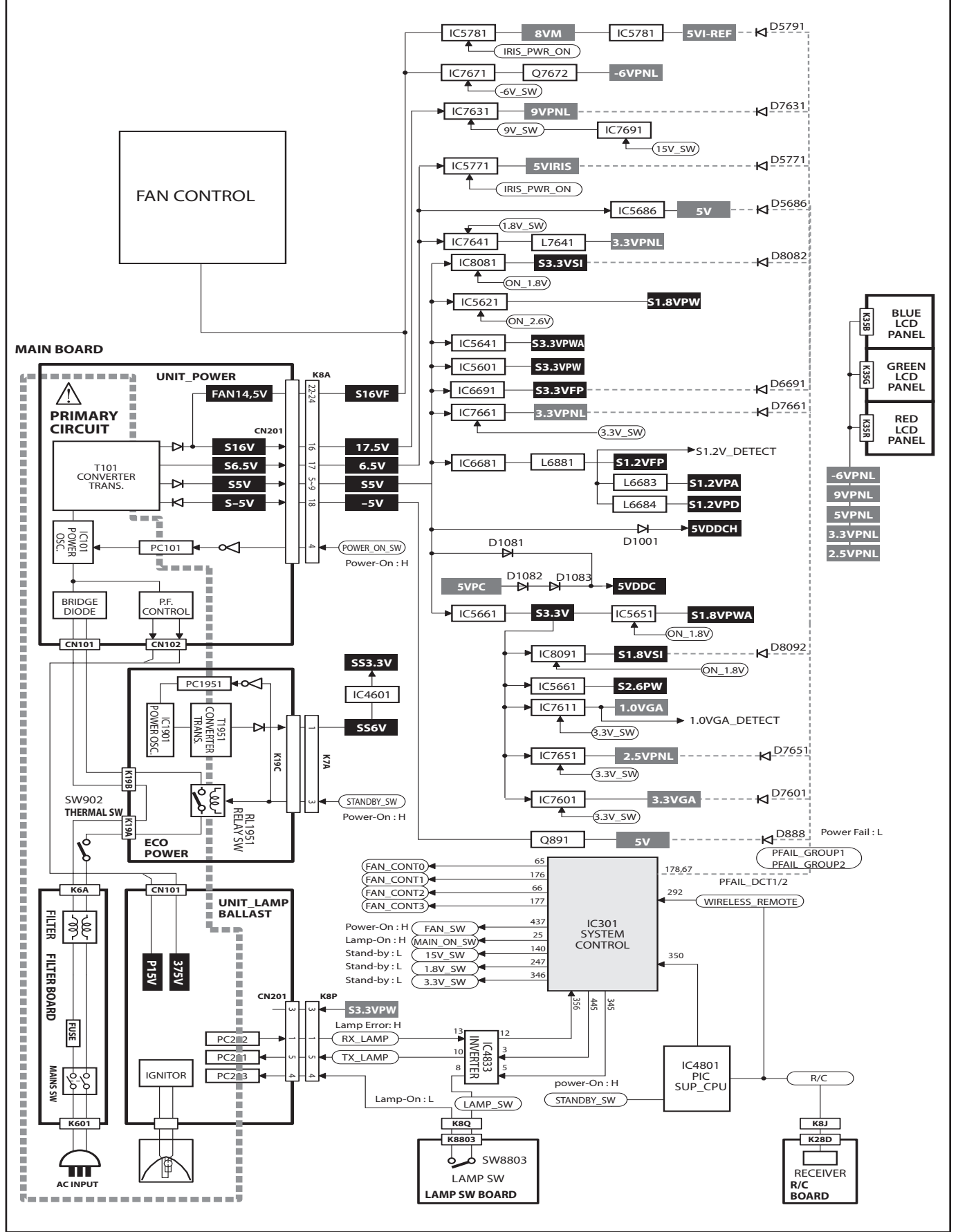
TempB - IC8841(side the lamp) on the Main board for optical parts

TempC - TH901 on the polarized glass (IN-B) for panel and polarized glass temperature

The temperature sensors measure surrounding temperature and sends data to IC301. IC301 controls the proper fan spinning speed based upon these temperature data. Also, when a temperature rises over a specified value, IC301 judges that there is abnormal internal temperature and turns off the projector.



The fan spinning speed is controlled with the temperature and the lamp power.



● Description of Power supply circuit

When the projector is standby mode, IC301(Main CPU) is not working and IC4801(Sub CPU) is only working for saving energy.

When the projector is connected to outlet with AC power cord and the Mains SW is switched to ON, SS3.3V line is supplied to standby circuit, including IC4801. IC4801 is waiting for the POWER ON/STAND-BY key input or remote control signal.

When the projector is turned on, "STANDBY_SW" signal (Power ON:H) is sent to the ECO POWER board, and then the switching power supply circuit starts operation. "POWER_ON_SW" signal (Lamp ON:H) from pin 25 of IC301 is also sent to the POWER board, and then the lamp power supply circuit starts operation.

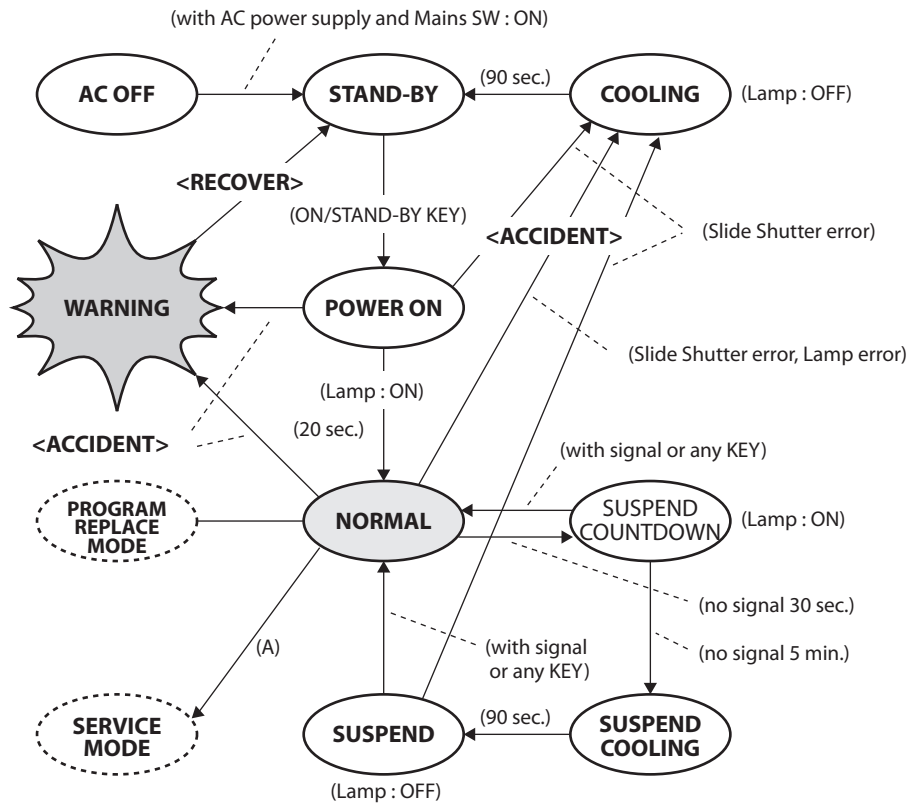
The "1.8V_SW", "3.3V_SW", "15V_SW" and "FAN_SW" signals are also sent to the power supply circuits.

Power failure protection of secondary power circuit

The projector provides a protection circuit to prevent the secondary failure when the power failure, fans failure or temperature failure occurs on the projector. The power failure detection lines are connected to the main power supplies. When a failure occurs, IC301 receives the power failure detection signals "POWER_FAIL" through the power failure detection lines and "POWER_ON_SW" signal (Lamp OFF:L) is supplied to the POWER board to stop the power supply operation, and the lamp operation is stopped with "LAMP_SW" signal (Lamp OFF:H).

Troubleshooting































● Flow chart of projector condition



(A) : Press MENU + INPUT KEY for 5 sec. (or press MENU KEY on R/C for 20 sec.)
 --> [S] mark display (for 5 sec.)
 --> UP + DOWN KEY or R/C SCREEN KEY for 3 sec.
 (Return to normal with ON/STAND-BY KEY)

Indicators and Projector Condition

Check the indicators for projector condition.

Indicators			Projector Condition
POWER red/green/ orange	WARNING red	LAMP REPLACE yellow	
			The Main On/Off switch is off or the AC power cord is unplugged.
			The projection lamp is being cooled down. The projector cannot be turned on until cooling is completed.
			The projector is ready to be turned on with the POWER ON/STAND-BY button.
			The projector is operating normally.
			The projector is in the Power management mode.
			The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator emits red light and the projector can be turned on. (The WARNING indicator keeps blinking.) Check and clean the air filters.
			The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking. Check and clean the air filters.
			The projector detects an abnormal condition and cannot be turned on. Unplug the AC power cord and plug it again to turn on the projector. If the projector is turned off again, unplug the AC power cord and checkup. Check the power lines. (Power failure)
			The lamp does not turn on because malfunction occurs or the lamp reaches its end of life.
			The automatic slide shutter is not working property.

 ... green

 ... red

 ... blinking orange

 ... off

 ... blinking green

 ... blinking red














 ... blinking yellow

* When the life of the projection lamp draws to an end, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly. Reset the lamp replacement counter after replacement of the lamp.

No Power

This projector provides a function which can be specified a defective area simply by indicating the LEDs on the control panel. Connect the AC cord and turn the projector on and then check the LED indication.

Indicators		Troubleshooting	
POWER red/green	WARNING red		
●	●	<div>Does a indicator flash or light?</div> <div>Yes</div> <div>The primary power supply circuit does not operate properly.</div> <div>No</div> <div>Is fuse (F601) broken?</div> <div>Yes</div> <div>Check Varistor (VA611). Check Power Board.</div> <div>No</div> <div>Check SS3.3V power supply line from the Eco Power board. - When the main power switch is ON, SS3.3V line is supplied to IC4801(Sub CPU).</div>	
⦿	⦿	<div>POWER (red) and WARNING (red) indicators are lighting?</div> <div>Yes</div> <div>The symptom indicates that the projector detected an abnormality in the cooling fan operation or in the power supply secondary circuits. Check fan operation and power supply lines, and the driving signal status. - POWER_FAIL (Error:L) signals are sent to IC301, then IC301 shuts down the power supply circuit.</div> <div>Check following items</div> <div>An abnormality occurs on the secondary power supply lines</div> <div>Check power supply lines, S5V, -5V, 17.5V, etc. on the Main board. - Refer to the diagram "Power Supply Lines".</div> <div>An abnormality occurs on the fan control circuits.</div> <div>Power failure detection diodes detect the fan operation stop. Check FN901/902/903/904/905 and peripheral circuit. Check connectors K8E/K8F from TH901/TH902. - Refer to the diagram "Fan control circuit".</div> <div>An abnormality occurs on power starter signals.</div> <div>Check power starter signals as follows: - STANDBY_SW signal (Power-on:H) is output from pin 9 of IC4801 and sent to the Power Board and 17.5V, S16V_F, 6.5V, S5V, -5V lines are supplied. - POWER_ON_SW signal (Power-on:H) is output from pin 25 of IC301 and sent to the Power Board and lamp ballast 375V line is supplied. - 3.3V_SW signal (Power-on:H) is output from pin 346 of IC301 and sent to IC7601, 7651, 7611 then 3.3V, 2.5V, 1.0V lines are supplied. - 1.8V_SW signal (Power-on:H) is output from pin 247 of IC301 and sent to IC7641, then 3.3V lines are supplied. - 15V_SW signal (Power-on:H) is output from pin 140 of IC301 and sent to IC7631, then 9V line is supplied. - FAN_SW signal (Power-on:H) is output from pin 437 of IC301 and applied to the Fan power supply circuit.</div> <div>To next page</div>	

Indicators			Troubleshooting	
POWER red/green /orange	WARNING red	LAMP REPLACE yellow		
  ↓ Cooling 			<p>From previous page</p> <p>↓</p> <p>WARNING (red) and POWER (red) indicators are flashing?</p> <p>Yes → The symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops flashing, and then try to turn on the projector.</p> <ul style="list-style-type: none"> - The internal temperature is monitored by the sensors, IC8841 on Main Board, TH901 and TH902. (Refer to "Fan control circuit") <p>No ↓</p>	
  ↓ Cooling 		  ↓ Cooling 	<p>POWER (red) and LAMP REPLACE (yellow) indicators are flashing?</p> <p>Yes → The symptom indicates that the projector detected an abnormality in the lamp driving signal. Check the lamp driving signal, Lamp Cover SW and the Thermal SW.</p> <ul style="list-style-type: none"> - LAMP_SW signal (Lamp-on:L) from pin 5 of IC4833 is sent to Lamp Ballast Unit through SW8803(Lamp Cover SW). TXD1 signal is output from pin 445 of IC301 and sent to Lamp ballast Unit via IC4833. (TXD1 signal is applied for lamp power control. Lo: Low power, Hi: High power) - RXD1 signal (Lamp status signal) is output from Lamp Ballast Unit and sent to pin 356 of IC301 via IC4833. <p>If an abnormality occurred on the lamp ballast unit, RXD1 signal and then the projector will be cooled down and to stand-by mode (POWER indicator lights red).</p> <p>Lamp Cover Switch (SW8803 on Lamp SW board) Make sure that the lamp cover is mounted correctly. If not or the lamp cover removed, the lamp does not light on for the safety. Check the lamp cover and lamp cover switch.</p> <p>Thermal Switch (SW902)short in normal SW902 opens when the surrounding temperature of the switch exceeds 100°C.</p> <p>No ↓</p>	
			<p>POWER indicator is flashing orange?</p> <p>Yes →</p> <p>Shutter Error at 3 cases;</p> <ol style="list-style-type: none"> (1) Error when turning on: Flashing orange (continuation). (2) Error when turning off: Flashing red (60sec.), flashing orange (60sec.), and then lighting red. (3) Error at normal mode: Flashing red (60sec.) and then lighting red. <p>→ The symptom indicates that the projector detected an abnormality in the slide shutter. Check the slide shutter and the door switches.</p> <p>Door Switches (SW8801/SW8811 on Door SW-A/B board) Make sure that the shutter is open or close. If it is half-open or close, the lamp does not light.</p>	

○ ... green.

○ ... blinking green.

◐ ... red.

◐ ... blinking red.

● ... off

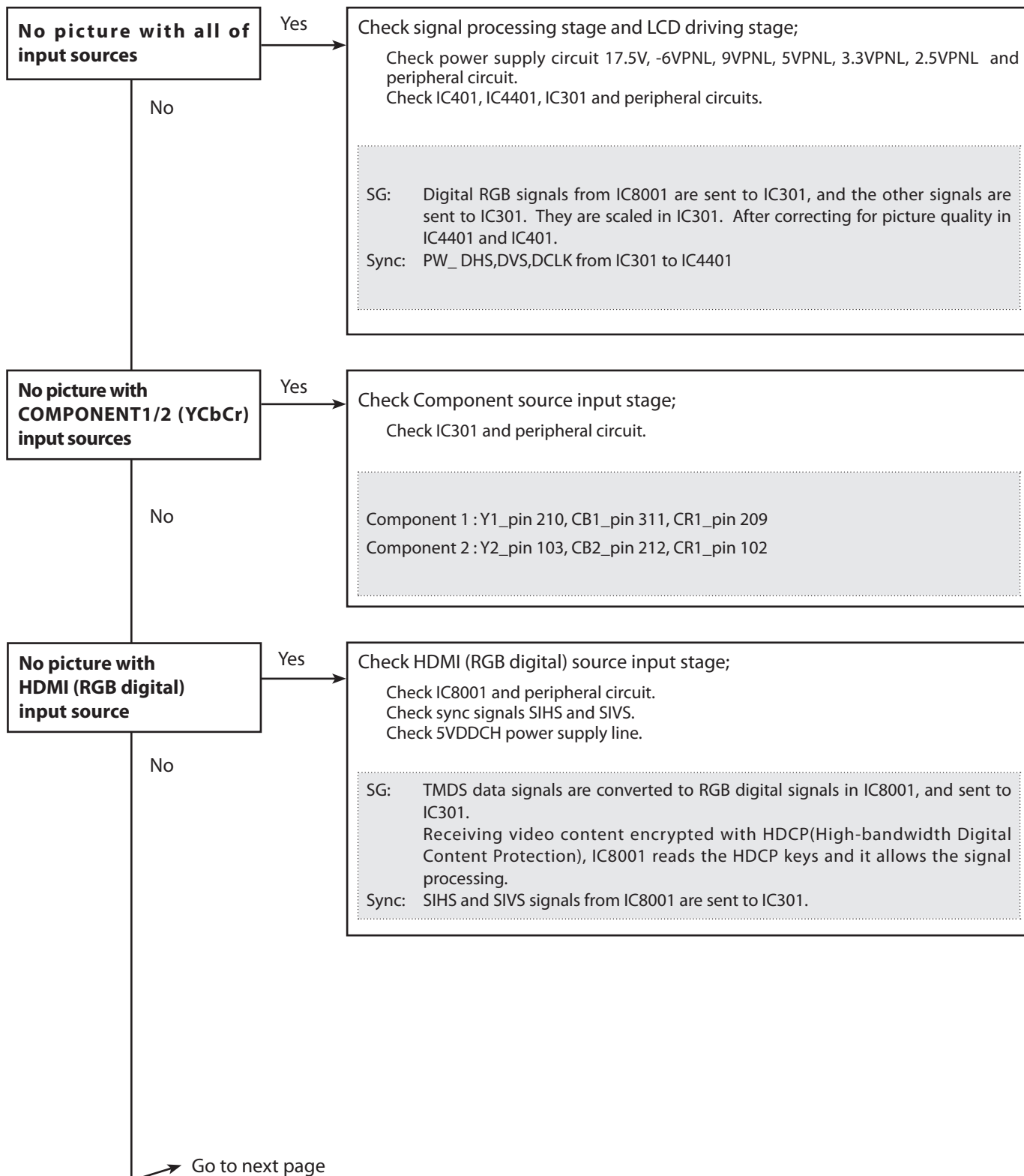
○ ... blinking orange.

◐ ... blinking yellow.

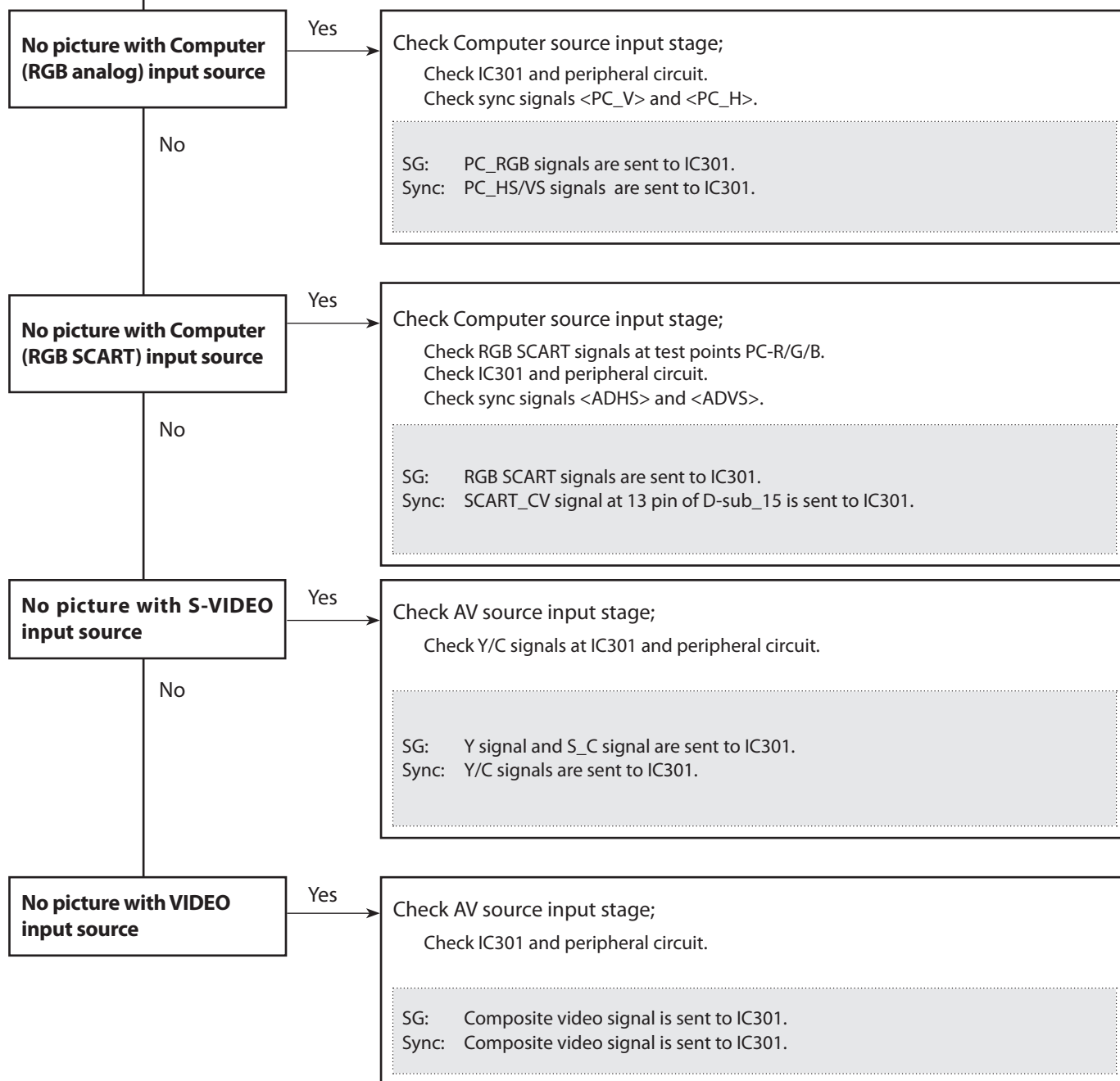
No Picture

Check following steps.

SG: Description of visual signal flow
Sync: Description of sync signal flow



From previous
page



Control Port Functions

● I/O Port Table of Main CPU (IC301, PW392)

Pin No.	Name	Function Name	Function	I/O
2	S3.3V	S3.3VPWA		-
20	S3.3V	S3.3VPW		-
238		SIDEN		I
337		SIEVNODD		I
238		SICLK		I
18		SIAHS		I
133		SIHS		I
240		SIVS		I
244	DOOR	SHUTTER_DEMO	Door_Open/Close demo	I
342	DOOR	DOOR_OPEN_SENS	Door open sensor	I
22	DOOR	DOOR_CLOSE SENS	Door close sensor	I
343	LED	STANDBY_LED	STANDBY LED Drive, On : H	O
23	LED	WARNING_LED	WARNING LED Drive, On : H	O
137	LED	POWER_LED	POWER LED Drive, On : H	O
245	LED	LAMP_LED	LAMP LED Drive, On : H	O
139	DOOR	DOOR_OPEN		O
246	DOOR	DOOR_CLOSE		O
345		BALLAST_ON_SW	Lamp control, Lamp On : H	O
25		POWER_ON_SW	Power Control Switch	O
140	15V	15V_SW		O
247	1.8V	1.8V_SW		O
346	3.3V	3.3V_SW		O
437	FAN	FAN_SW	Fan Control Switch	O
248		NCONFIG		O
142		NSTATUS		O
27		CONF_DONE		O
249	IRIS	IRIS_ERR_OUT	Lamp IRIS Control	I
143	IRIS	IRIS_PWR_ON	Lamp IRIS Control	O
28	DDC	PCDDCSEL		O
250	HDMI1	R1HPDOUT		O
251		SIRST		O
29	HDMI2	HDMI2DCT		I
144	HDMI1	HDMI1DCT		I
145	HDMI2	R2DDCSEL		O
146		SCART_CV_SW		O
32	HDMI2	R2HPDOUT		O
33	HDMI1	R1DDCSEL		O
438	KEY	KEY11	Key Control Output	O
349	KEY	KEY21	Key Control Output	O
252	KEY	KEY31	Key Control Output	O
147		GAMMA_RESET		O
34	-6V	-6V_SW		O
439		THERM_DETECT		I
253	KEY	KEY01	Key Control Input	I
148	KEY	KEY02	Key Control Input	I
35	KEY	KEY03	Key Control Input	I
350		POWER_SW_ON		I
36	P_FAIL	PFAIL_DETECT		O
149		SERIAL_EN		O
37		FPG_K1		O

● I/O Port Table of Main CPU (IC301, PW392) _Continue

Pin No.	Name	Function Name	Function	I/O
351		PW_SDATA_OUT		O
440		PW_SCS		O
259		PW_SCLK_OUT		O
354	PWM	PW_PWM2		O
152	PWM	PW_PWM4		O
444	SDA	SDA0	IIC Bus Control data	O
355	SCL	SCL0	IIC Bus Control Clock	O
445	RXD	RXD1	Serial Control RXD	I
356	TXD	TXD1	Serial Control TXD	O
154	SDA	SDA1	IIC Bus Control data	O
41	SCL	SCL1	IIC Bus Control data	O
65		FAN_CTL0	Fan Control_0	O
176		FAN_CTL2	Fan Control_1	O
66		FAN_CTL2	Fan Control_2	O
177		FAN_CTL3	Fan Control_3	O
178	P_FAIL	PFAIL_DCT1	Power Fail Signal Input Group1 Failure : L	I
67	P_FAIL	PFAIL_DCT2	Power Fail Signal Input Group2 Failure : L	I
292	1.0V	1.0VVGA		I
179	S1.2V	S1.2V_DETECT		I
291	SENSOR	THERM1	Thermistor1 (ROOM)	I
68	SENSOR	THERM2	Thermistor2 (ROOM)	I
180		ADC7		O
69		CPU_ADC_IN		I
291	RXD	PW_TXD	Serial Control RXD	O
386	TXD	PW_RXD	Serial Control TXD	I
292		WIRELESS_REMOTE		I
293		IRRECVR2		I
294		NMI_RST		I
475		SINT		I
479		ROMWE		O
84		ROMOE		O
306		PANEL_IC_EN		O
399	ANALOG RGB	PC_V	PC_H-Sync. Input	I
98	ANALOG RGB	PC_H	PC_V-Sync. Input	I
209	COMPONENT1	CR1	Cr Component Video Signal 1	I
210	COMPONENT1	Y1	Y Component Video Signal 1	I
311	COMPONENT1	CB1	Cb Component Video Signal 1	I
102	COMPONENT2	CR2	Cr Component Video Signal 2	I
103	COMPONENT2	Y2	Y Component Video Signal 2	I
212	COMPONENT2	CB2	Cb Component Video Signal 2	I
104	SCART	SCART_CV	Composite Video Signal Input for SCART	I
214	ANALOG RGB	PC_R/SCART	PC_R Signal Input for SCART	I
315	ANALOG RGB	PC_SOG	PC Sync. on Green Signal Input	I
106	ANALOG RGB	PC_G/SCART	PC_G Signal Input for SCART	I
215	ANALOG RGB	PC_B/SCART	PC_B Signal Input for SCART	I
108	S-VIDEO	S_C	S_C Signal Input	I
318	S-VIDEO	S_Y	S_Y Signal Input	I
109	VIDEO	CVBS	Composite Video Signal Input	I
222		PW_RST		I

Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector.

Components indicated by a Δ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:

CAPACITOR	CERAMIC	100P	K	50V	
					Rated Voltage
					Tolerance Symbols:
					Less than 10pF
					A : Not specified B : $\pm 0.1\text{pF}$ C : $\pm 0.25\text{pF}$
					D : $\pm 0.5\text{pF}$ E : $+0 -1\text{pF}$ F : $\pm 1\text{PF}$
					G : $\pm 2\text{pF}$ H : $+0.1 -0\text{pF}$ L : $+0 -0.1\text{pF}$
					R : $\pm 0.25 -0\text{pF}$ S : $+0 -0.25\text{pF}$
					More than 10pF
					A : Not specified B : $\pm 0.1\%$ C : $\pm 0.25\%$
					D : $\pm 0.5\%$ F : $\pm 1\%$ G : $\pm 2\%$
					H : $\pm 3\%$ J : $\pm 5\%$ K : $\pm 10\%$
					L : $\pm 15\%$ M : $\pm 20\%$ N : $\pm 30\%$
					P : $+100 -0\%$ Q : $+30 -10\%$ T : $+50 -10\%$
					U : $+75 -10\%$ V : $+20 -10\%$ W : $+100 -10\%$
					X : $+40 -20\%$ Y : $+150 -10\%$ Z : $+80 -20\%$

Rated value: P=pico farad, U=micro farad

Material:

CERAMIC.....	Ceramic
MT-PAPER.....	Metallized Paper
POLYESTER.....	Polyester
MT-POLYEST.....	Metallized Polyester
POLYPRO.....	Polypropylene
MT-POLYPRO.....	Metallized Polypropylene
COMPO FILM.....	Composite film
MT-COMPO.....	Metallized Composite
STYRENE.....	Styrene
TA-SOLID.....	Tantalum Oxide Solid Electrolytic
AL-SOLID.....	Aluminium Solid Electrolytic
ELECT.....	Aluminum Foil Electrolytic
NP-ELECT.....	Non-polarised Electrolytic
OS-SOLID.....	Aluminium Solid with Organic Semiconductive Electrolytic
POS-SOLID.....	Polymerized Organic Semiconductive
DL-ELECT.....	Double Layered Electrolytic
PPS-FILM.....	Polyphenylene Sulfide Film
MT-PPS-FILM.....	Metallized Polyphenylene Sulfide Film
MT-PEN-FILM.....	Metallized Polyethylenenaphthalate Film
CAPACITOR.....	Other

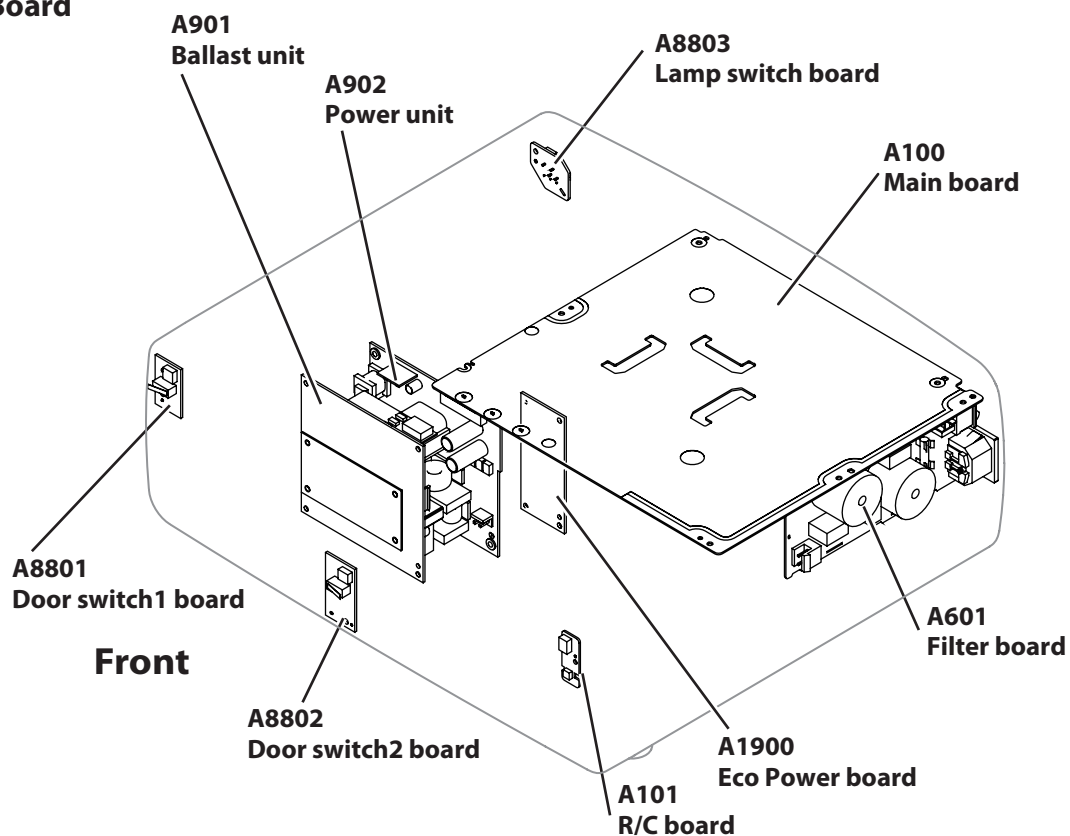
RESISTOR	CARBON	4.7K	J	A	1/4W	
						Rated Wattage
						Performance Symbols:
						A: General B: Non flammable Z: Low noise
						Other: Temperature coefficient
						T : $\pm 10\text{ppm}/^{\circ}\text{C}$ U : $\pm 25\text{ppm}/^{\circ}\text{C}$ C : $\pm 50\text{ppm}/^{\circ}\text{C}$
						D : $\pm 100\text{ppm}/^{\circ}\text{C}$ E : $\pm 200\text{ppm}/^{\circ}\text{C}$ F : $\pm 250\text{ppm}/^{\circ}\text{C}$
						G : $\pm 350\text{ppm}/^{\circ}\text{C}$ H : $\pm 1000\text{ppm}/^{\circ}\text{C}\pm 10\%$ W : $\pm 1200\text{ppm}/^{\circ}\text{C}\pm 10\%$
						Y : $\pm 1400\text{ppm}/^{\circ}\text{C}\pm 10\%$ J : $\pm 2000\text{ppm}/^{\circ}\text{C}\pm 10\%$ K : $\pm 2400\text{ppm}/^{\circ}\text{C}\pm 10\%$
						L : $\pm 2700\text{ppm}/^{\circ}\text{C}\pm 10\%$ M : $\pm 3000\text{ppm}/^{\circ}\text{C}\pm 10\%$ N : $\pm 3300\text{ppm}/^{\circ}\text{C}\pm 10\%$
						P : $\pm 3600\text{ppm}/^{\circ}\text{C}\pm 10\%$ Q : $\pm 3900\text{ppm}/^{\circ}\text{C}\pm 10\%$ R : $\pm 4200\text{ppm}/^{\circ}\text{C}\pm 10\%$
						S : $\pm 4300\text{ppm}/^{\circ}\text{C}\pm 10\%$ V : $\pm 4500\text{ppm}/^{\circ}\text{C}\pm 10\%$ X : $\pm 8000\text{ppm}/^{\circ}\text{C}\pm 10\%$
						Tolerance Symbols:
						A : $\pm 0.05\%$ B : $\pm 0.1\%$ C : $\pm 0.25\%$ D : $\pm 0.5\%$
						F : $\pm 1\%$ G : $\pm 2\%$ J : $\pm 5\%$ K : $\pm 10\%$
						M : $\pm 20\%$ P : $+5 -15\%$ Z : 0 ohm
						Rated value, ohms:
						K : 1,000, M : 1,000,000

Material:

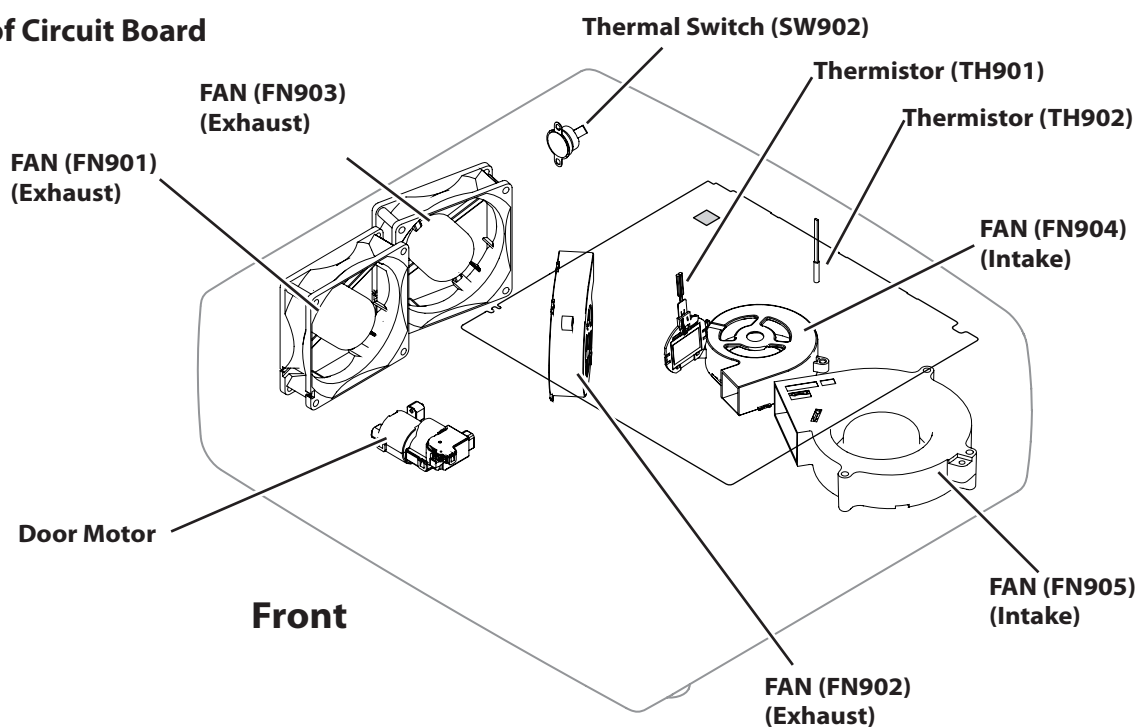
CARBON.....	Carbon
MT-FILM.....	Metal Film
OXIDE-MT.....	Oxide Metal Film
SOLID.....	Composition
MT-GLAZE.....	Metal Glaze
WIRE WOUND...	Wire Wound
CERAMIC RES..	Ceramic
FUSIBLE RES...	Fusible
RESISTOR	Other

Electrical Parts Location

● Assembled Board



● Out of Circuit Board



Key. No.	Part No.	Description	Key. No.	Part No.	Description
ASSEMBLED BOARDS			ASSEMBLED BOARDS		
A8801	610 335 4651	ASSY,PWB,DOOR SWITCH1 MD4A	A1900	610 346 1182	ASSY,PWB,ECO POWER KH7AM
A8802	610 335 4699	ASSY,PWB,DOOR SWITCH2 MD4A			
A8803	610 335 4668	ASSY,PWB,LAMP SWITCH MD4A	TRANSISTOR		
A601	610 341 4263	ASSY,PWB,FILTER MF4A	Q1961	305 134 5928	TR 2SA1037AK-T146-R
A1900	610 346 1182	ASSY,PWB,ECO POWER KH7AM		305 147 2218	TR 2SA1037AK-S-T146
A100	610 350 7620	ASSY,PWB,MAIN.MF4AE		305 173 9618	TR 2SA1235A1E
A101	610 350 7637	ASSY,PWB,R/C.MF4AE		305 173 9717	TR 2SA1235A1F
OUT OF CIRCUIT BOARD				405 220 3115	TR ISA1235AC1E
L901	945 003 3811	CORE,FERRITE		405 220 3016	TR ISA1235AC1F
	945 040 2594	CORE,FERRITE	Q1962	305 014 4512	TR 2SC2412K T146 R
L902	945 003 3835	CORE,FERRITE		305 014 4611	TR 2SC2412K T146 S
△ LP901	610 344 5120	COMPL,OPT LMP-ME4A		305 015 8727	TR 2SC2812-L6-TB
03	945 003 3835	CORE,FERRITE		305 015 8925	TR 2SC2812-L7-TB
03	312 069 7402	SPECIAL SCREW NI		305 163 1615	TR 2SC2812N-L6-TB0
△ A901	645 093 7811	UNIT,BALLAST		305 173 9816	TR 2SC3928A1R
△ A902	645 093 7828	UNIT,POWER		305 173 9915	TR 2SC3928A1S
BLST&LMP	610 336 0157	CABLE,BALLAST MD4A	INTEGRATED CIRCUIT		
△ FN901	645 098 4303	MOTOR,FAN DC ***W	IC1901	409 700 8703	IC STR-A6079
△ FN902	645 094 2686	MOTOR,BLW DC 4.14W	IC1961	409 692 2515	IC TA76L431FB
△ FN903	645 098 4310	MOTOR,FAN DC ***W	CAPACITOR		
△ FN904	645 094 2693	MOTOR,BLW DC 4.14W	C1901	404 121 9704	ELECT15U M 450V
△ FN905	645 098 0534	MOTOR,BLW DC 4.44W	C1904	303 412 9214	ELECT22U M 50V
△ K10C1	312 073 0406	SPECIAL SCREW	C1906	303 215 2214	CERAMIC 0.01U K 50V
K10C2	312 073 0406	SPECIAL SCREW	C1913	303 367 0410	CERAMIC 0.1U K 50V
△ SW902	945 048 3159	SWITCH,THERMAL(100DEG)	C1961	303 427 1121	ELECT220U M 10V
TH901	945 079 7768	SWITCH,THERMAL,THERMISTOR	C1962	303 298 9612	CERAMIC 0.1U K 16V
TH902	945 079 7775	SWITCH,THERMAL,THERMISTOR	C1964	303 358 8319	CERAMIC 1U K 10V
WK8J	610 341 3884	HALOGEN FREE WIRE 4P 1.5MM	RESISTOR		
WK8L	610 337 2198	HALOGEN FREE WIRE 3P 1.5MM BLU	R1902	301 184 2013	MT-GLAZE 2.2 JA 1/2W
WK8M	610 337 2181	HALOGEN FREE WIRE 3P 1.5MM RED	R1903	301 185 3811	MT-GLAZE 4.7 JA 1/2W
WK8P	610 337 2204	HALOGEN FREE WIRE 5P 1.5MM	R1906	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
WK8Q	610 337 2204	HALOGEN FREE WIRE 5P 1.5MM	R1910	301 256 6314	MT-GLAZE 47K JA 1/10W
A8801 610 335 4651 ASSY,PWB,DOOR SWITCH1 MD4A			R1961	301 256 6918	MT-GLAZE 680 JA 1/10W
SW8801	945 056 0751	SWITCH,MICRO 1P-2T	R1962	301 150 6212	MT-GLAZE 1K JA 1/10W
A8802 610 335 4699 ASSY,PWB,DOOR SWITCH2 MD4A			R1963	301 150 6212	MT-GLAZE 1K JA 1/10W
SW8811	945 056 0751	SWITCH,MICRO 1P-2T	R1964	301 265 4417	MT-GLAZE 6.8K FA 1/10W
A8803 610 335 4668 ASSY,PWB,LAMP SWITCH MD4A			R1966	301 265 4417	MT-GLAZE 6.8K FA 1/10W
SW8803	945 063 5176	SWITCH,PUSH 2P-2TX3	R1967	301 150 6212	MT-GLAZE 1K JA 1/10W
A601 610 341 4263 ASSY,PWB,FILTER MF4A			R1968	301 162 3711	MT-GLAZE 4.7K JA 1/10W
CAPACITOR			R1969	301 150 6212	MT-GLAZE 1K JA 1/10W
△ C611	304 094 3801	MT-POLYEST 0.22U K 275V	R1971	301 162 3711	MT-GLAZE 4.7K JA 1/10W
△ C612	304 094 3801	MT-POLYEST 0.22U K 275V	R1972	301 264 7518	MT-GLAZE 2.7K FA 1/10W
△ C613	304 094 3801	MT-POLYEST 0.22U K 275V	RL1951	645 101 0544	RELAY
C614	304 073 4508	CERAMIC 2200P K 250V	TRANSFORMER		
	304 071 4104	CERAMIC 2200P M 400V	△ T1951	645 101 1572	TRANS,POWER,PULSE
C616	304 073 4508	CERAMIC 2200P K 250V	COIL		
	304 071 4104	CERAMIC 2200P M 400V	L1951	945 086 6037	IMPEDANCE,330 OHM P
RESISTOR			DIODE		
△ R611	301 008 8620	CARBON 220K JA 1/2W	D1907	307 247 8827	DIODE RF101L2S
VARIABLE RESISTOR			D1908	307 148 2201	DIODE AM01A
△ VA611	408 066 1700	VD TND14SE471KB0SLAA0	D1909	307 148 2201	DIODE AM01A
COIL			D1961	307 247 8827	DIODE RF101L2S
△ L611	945 050 2232	LINE FILTER	D1962	307 163 0414	DIODE 1SS352-(TPH3)
△ L612	945 050 2232	LINE FILTER	D1963	307 247 8827	DIODE RF101L2S
MISCELLANEOUS			MISCELLANEOUS		
△ F601	323 024 3209	FUSE 250V 5A	△ F1901	323 021 9006	FUSE 250V 1A
△ K601	645 093 1765	SOCKET,INLET AC 3P	△ PC1951	407 265 7813	PC TLP781F(D4-GB-TP7)
A1900 610 346 1182 ASSY,PWB,ECO POWER KH7AM			A100 610 350 7620 ASSY,PWB,MAIN.MF4AE		
TRANSISTOR			TRANSISTOR		
Q1961	305 134 5928	TR 2SA1037AK-T146-R	Q1001	305 217 8614	TR RN1105 TE85L
	305 147 2218	TR 2SA1037AK-S-T146	Q1002	305 217 8614	TR RN1105 TE85L
	305 173 9618	TR 2SA1235A1E	Q1021	305 217 8614	TR RN1105 TE85L
	305 173 9717	TR 2SA1235A1F	Q1022	305 217 8614	TR RN1105 TE85L
	405 220 3115	TR ISA1235AC1E	Q1051	305 014 4512	TR 2SC2412K T146 R
	405 220 3016	TR ISA1235AC1F		305 014 4611	TR 2SC2412K T146 S
Q1962	305 014 4512	TR 2SC2412K T146 R		305 015 8727	TR 2SC2812-L6-TB
	305 014 4611	TR 2SC2412K T146 S		305 015 8925	TR 2SC2812-L7-TB
	305 015 8727	TR 2SC2812-L6-TB			
	305 015 8925	TR 2SC2812-L7-TB			
	305 163 1615	TR 2SC2812N-L6-TB0			
	305 173 9816	TR 2SC3928A1R			
	305 173 9915	TR 2SC3928A1S			

Key. No.	Part No.	Description	Key. No.	Part No.	Description
Q1052	305 163 1615	TR 2SC2812N-L6-TB0	Q4021	305 014 4512	TR 2SC2412K T146 R
	305 173 9816	TR 2SC3928A1R		305 014 4611	TR 2SC2412K T146 S
	305 173 9915	TR 2SC3928A1S		305 015 8727	TR 2SC2812-L6-TB
	305 014 4512	TR 2SC2412K T146 R		305 015 8925	TR 2SC2812-L7-TB
	305 014 4611	TR 2SC2412K T146 S		305 163 1615	TR 2SC2812N-L6-TB0
	305 015 8727	TR 2SC2812-L6-TB		305 173 9816	TR 2SC3928A1R
	305 015 8925	TR 2SC2812-L7-TB		305 173 9915	TR 2SC3928A1S
Q1053	305 163 1615	TR 2SC2812N-L6-TB0	Q4041	305 014 4512	TR 2SC2412K T146 R
	305 173 9816	TR 2SC3928A1R		305 014 4611	TR 2SC2412K T146 S
	305 173 9915	TR 2SC3928A1S		305 015 8727	TR 2SC2812-L6-TB
	305 014 4512	TR 2SC2412K T146 R		305 015 8925	TR 2SC2812-L7-TB
	305 014 4611	TR 2SC2412K T146 S		305 163 1615	TR 2SC2812N-L6-TB0
	305 015 8727	TR 2SC2812-L6-TB		305 173 9816	TR 2SC3928A1R
	305 015 8925	TR 2SC2812-L7-TB		305 173 9915	TR 2SC3928A1S
Q1081	305 163 1615	TR 2SC2812N-L6-TB0	Q4601	305 174 1819	TR CPH3424-TL-E
	305 173 9816	TR 2SC3928A1R	Q4603	305 174 1819	TR CPH3424-TL-E
	305 173 9915	TR 2SC3928A1S	Q4604	305 217 7815	TR HN1B04FE-Y TE85L
	305 217 7518	TR RN1102 TE85L	Q4605	305 217 7815	TR HN1B04FE-Y TE85L
Q1231	305 014 4512	TR 2SC2412K T146 R	Q5631	305 134 5928	TR 2SA1037AK-T146-R
	305 014 4611	TR 2SC2412K T146 S		305 147 2218	TR 2SA1037AK-S-T146
	305 015 8727	TR 2SC2812-L6-TB		305 173 9618	TR 2SA1235A1E
	305 015 8925	TR 2SC2812-L7-TB		305 173 9717	TR 2SA1235A1F
	305 163 1615	TR 2SC2812N-L6-TB0		405 220 3115	TR ISA1235AC1E
	305 173 9816	TR 2SC3928A1R		405 220 3016	TR ISA1235AC1F
	305 173 9915	TR 2SC3928A1S	Q5632	305 217 4913	TR RN1111 TE85L
Q1243	305 014 4512	TR 2SC2412K T146 R	Q5691	305 134 5928	TR 2SA1037AK-T146-R
	305 014 4611	TR 2SC2412K T146 S		305 147 2218	TR 2SA1037AK-S-T146
	305 015 8727	TR 2SC2812-L6-TB		305 173 9618	TR 2SA1235A1E
	305 015 8925	TR 2SC2812-L7-TB		305 173 9717	TR 2SA1235A1F
	305 163 1615	TR 2SC2812N-L6-TB0		405 220 3115	TR ISA1235AC1E
	305 173 9816	TR 2SC3928A1R		405 220 3016	TR ISA1235AC1F
	305 173 9915	TR 2SC3928A1S	Q5692	305 217 4913	TR RN1111 TE85L
Q1244	305 217 8614	TR RN1105 TE85L	Q6551	305 014 4512	TR 2SC2412K T146 R
Q2853	305 217 7518	TR RN1102 TE85L		305 014 4611	TR 2SC2412K T146 S
Q2854	305 217 7518	TR RN1102 TE85L		305 015 8727	TR 2SC2812-L6-TB
Q2856	305 217 7518	TR RN1102 TE85L		305 015 8925	TR 2SC2812-L7-TB
Q2857	305 217 7518	TR RN1102 TE85L		305 163 1615	TR 2SC2812N-L6-TB0
Q3003	305 014 4512	TR 2SC2412K T146 R		305 173 9816	TR 2SC3928A1R
	305 014 4611	TR 2SC2412K T146 S		305 173 9915	TR 2SC3928A1S
	305 015 8727	TR 2SC2812-L6-TB	Q7671	305 014 4512	TR 2SC2412K T146 R
	305 015 8925	TR 2SC2812-L7-TB		305 014 4611	TR 2SC2412K T146 S
	305 163 1615	TR 2SC2812N-L6-TB0		305 015 8727	TR 2SC2812-L6-TB
	305 173 9816	TR 2SC3928A1R		305 015 8925	TR 2SC2812-L7-TB
	305 173 9915	TR 2SC3928A1S		305 163 1615	TR 2SC2812N-L6-TB0
	305 014 4512	TR 2SC2412K T146 R		305 173 9816	TR 2SC3928A1R
Q3004	305 014 4611	TR 2SC2412K T146 S		305 173 9915	TR 2SC3928A1S
	305 015 8727	TR 2SC2812-L6-TB	Q7672	305 217 8515	TR RSQ025P03-TR
	305 015 8925	TR 2SC2812-L7-TB	Q7681	305 014 4512	TR 2SC2412K T146 R
	305 163 1615	TR 2SC2812N-L6-TB0		305 014 4611	TR 2SC2412K T146 S
	305 173 9816	TR 2SC3928A1R		305 015 8727	TR 2SC2812-L6-TB
	305 173 9915	TR 2SC3928A1S		305 015 8925	TR 2SC2812-L7-TB
	305 014 4512	TR 2SC2412K T146 R		305 163 1615	TR 2SC2812N-L6-TB0
Q3006	305 014 4611	TR 2SC2412K T146 S		305 173 9816	TR 2SC3928A1R
	305 015 8727	TR 2SC2812-L6-TB		305 173 9915	TR 2SC3928A1S
	305 015 8925	TR 2SC2812-L7-TB	Q7691	305 014 4512	TR 2SC2412K T146 R
	305 163 1615	TR 2SC2812N-L6-TB0		305 014 4611	TR 2SC2412K T146 S
	305 173 9816	TR 2SC3928A1R		305 015 8727	TR 2SC2812-L6-TB
	305 173 9915	TR 2SC3928A1S		305 015 8925	TR 2SC2812-L7-TB
	305 014 4512	TR 2SC2412K T146 R		305 163 1615	TR 2SC2812N-L6-TB0
	305 014 4611	TR 2SC2412K T146 S		305 173 9816	TR 2SC3928A1R
	305 015 8727	TR 2SC2812-L6-TB		305 173 9915	TR 2SC3928A1S
Q3007	305 015 8925	TR 2SC2812-L7-TB		305 014 4512	TR 2SC2412K T146 R
	305 163 1615	TR 2SC2812N-L6-TB0		305 014 4611	TR 2SC2412K T146 S
	305 173 9816	TR 2SC3928A1R		305 015 8727	TR 2SC2812-L6-TB
	305 173 9915	TR 2SC3928A1S		305 015 8925	TR 2SC2812-L7-TB
	305 014 4512	TR 2SC2412K T146 R	Q7692	305 191 5814	TR 3LN01C-TB-E
	305 014 4611	TR 2SC2412K T146 S	Q7801	305 217 5019	TR RN1117 TE85L
	305 015 8727	TR 2SC2812-L6-TB	Q7802	305 217 7419	TR RN2102 TE85L
Q3801	305 015 8925	TR 2SC2812-L7-TB	Q7803	305 217 7518	TR RN1102 TE85L
	305 163 1615	TR 2SC2812N-L6-TB0	Q7804	305 217 7518	TR RN1102 TE85L
	305 173 9816	TR 2SC3928A1R	Q7821	305 217 8515	TR RSQ025P03-TR
	305 173 9915	TR 2SC3928A1S	Q7822	305 217 7815	TR HN1B04FE-Y TE85L
	305 191 5814	TR 3LN01C-TB-E	Q7831	305 217 8515	TR RSQ025P03-TR
	305 014 4512	TR 2SC2412K T146 R	Q7832	305 217 7815	TR HN1B04FE-Y TE85L
	305 014 4611	TR 2SC2412K T146 S	Q7841	305 217 8515	TR RSQ025P03-TR
Q4001	305 015 8727	TR 2SC2812-L6-TB	Q7842	305 217 7815	TR HN1B04FE-Y TE85L
	305 015 8925	TR 2SC2812-L7-TB	Q7851	305 217 8515	TR RSQ025P03-TR
	305 163 1615	TR 2SC2812N-L6-TB0			
	305 173 9816	TR 2SC3928A1R			
	305 173 9915	TR 2SC3928A1S			

Key. No.	Part No.	Description	Key. No.	Part No.	Description
Q7852	305 217 7815	TR HN1B04FE-Y TE85L	IC8851	309 439 8919	IC TC7WH125FU
Q8101	305 217 7518	TR RN1102 TE85L	IC8861	309 488 5924	IC TC7WH04FK-TE85L
Q8131	305 217 7518	TR RN1102 TE85L	IC8862	309 471 6713	IC TC7WH00FK(TE85L)
Q891	305 014 4512	TR 2SC2412K T146 R	IC8863	309 487 5727	IC TC7SZ125FU
	305 014 4611	TR 2SC2412K T146 S	IC9751	410 664 2300	IC AD826ARZ-REEL
	305 015 8727	TR 2SC2812-L6-TB	IC9752	410 664 2300	IC AD826ARZ-REEL
	305 015 8925	TR 2SC2812-L7-TB	CAPACITOR		
	305 163 1615	TR 2SC2812N-L6-TB0	C1012	403 455 1012	CERAMIC 1U K 10V
	305 173 9816	TR 2SC3928A1R		303 433 1112	CERAMIC 1U K 10V
	305 173 9915	TR 2SC3928A1S	C1051	403 455 1012	CERAMIC 1U K 10V
INTEGRATED CIRCUIT				303 433 1112	CERAMIC 1U K 10V
IC1071	309 439 8919	IC TC7WH125FU	C1052	403 455 1012	CERAMIC 1U K 10V
IC1081	309 462 0327	IC 24LC21AT/SN		303 433 1112	CERAMIC 1U K 10V
IC1082	310 517 6809	IC TC74LVX4053FT	C1053	403 455 1012	CERAMIC 1U K 10V
IC1301	410 643 4400	IC EDD2516AETA-5B-E		303 433 1112	CERAMIC 1U K 10V
IC1321	410 643 4400	IC EDD2516AETA-5B-E	C1054	403 455 1012	CERAMIC 1U K 10V
IC1341	410 647 7902	IC MCP103T-300		303 433 1112	CERAMIC 1U K 10V
IC1361	309 439 8919	IC TC7WH125FU	C1056	403 455 1012	CERAMIC 1U K 10V
IC1362	309 439 8919	IC TC7WH125FU		303 433 1112	CERAMIC 1U K 10V
IC1391	310 538 4907	IC 24LC64T-I/SNG	C1057	403 455 1012	CERAMIC 1U K 10V
IC1401	310 362 6504	IC TC74LCX541FT		303 433 1112	CERAMIC 1U K 10V
IC1431	309 487 5727	IC TC7SZ125FU	C1071	303 438 0219	CERAMIC 0.1U K 16V
IC1501	309 487 5727	IC TC7SZ125FU		303 409 3426	CERAMIC 0.1U K 16V
IC301	409 686 5317	IC PW392C-30L	C1081	303 438 0219	CERAMIC 0.1U K 16V
IC3051	309 536 5514	IC AD8074ARUZ-REEL		303 409 3426	CERAMIC 0.1U K 16V
IC3401	310 600 5108	IC MSM56V16160J-8T3-K	C1082	303 438 0219	CERAMIC 0.1U K 16V
IC3471	309 439 8919	IC TC7WH125FU		303 409 3426	CERAMIC 0.1U K 16V
IC3472	309 439 8919	IC TC7WH125FU	C1084	303 383 5215	CERAMIC 4.7U K 6.3V
IC3801	309 652 0714	IC HIN202EIBNZ-T	C1241	303 282 9413	CERAMIC 680P K 50V
IC4401	410 631 4405	IC EP2C35F484C8N	C1243	303 282 9413	CERAMIC 680P K 50V
IC4601	310 595 8009	IC PQ1LAX95MSPQ	C1244	303 438 0219	CERAMIC 0.1U K 16V
IC4802	310 337 0506	IC TC74LCX14FT		303 409 3426	CERAMIC 0.1U K 16V
IC4803	410 647 7902	IC MCP103T-300	C1301	303 438 0219	CERAMIC 0.1U K 16V
IC4804	309 644 5215	IC 74LVC1G04GW-125		303 409 3426	CERAMIC 0.1U K 16V
	309 330 2511	IC TC7SH04FU-(TE85L)	C1302	303 438 0219	CERAMIC 0.1U K 16V
IC4833	310 337 0506	IC TC74LCX14FT		303 409 3426	CERAMIC 0.1U K 16V
IC5601	310 595 8009	IC PQ1LAX95MSPQ	C1303	303 438 0219	CERAMIC 0.1U K 16V
IC5611	410 643 5100	IC PQ070XNB1ZPH		303 409 3426	CERAMIC 0.1U K 16V
IC5621	409 685 9415	IC MP2307DN	C1304	303 438 0219	CERAMIC 0.1U K 16V
IC5641	310 595 8009	IC PQ1LAX95MSPQ		303 409 3426	CERAMIC 0.1U K 16V
IC5651	310 595 8009	IC PQ1LAX95MSPQ	C1306	303 438 0219	CERAMIC 0.1U K 16V
IC5661	409 685 9415	IC MP2307DN		303 409 3426	CERAMIC 0.1U K 16V
IC5686	309 545 5710	IC XC6202P502M	C1307	303 438 0219	CERAMIC 0.1U K 16V
IC5701	410 670 6705	IC HD64F36092FYV-SA-002		303 409 3426	CERAMIC 0.1U K 16V
IC5702	410 647 7902	IC MCP103T-300	C1308	303 438 0219	CERAMIC 0.1U K 16V
IC5731	409 693 3917	IC TB6593FNG		303 409 3426	CERAMIC 0.1U K 16V
IC5761	310 479 4004	IC TC7WBD125AFK	C1309	303 438 0219	CERAMIC 0.1U K 16V
IC5771	310 595 8009	IC PQ1LAX95MSPQ		303 409 3426	CERAMIC 0.1U K 16V
IC5781	309 461 7822	IC PQ20WZ11	C1311	303 438 0219	CERAMIC 0.1U K 16V
IC5791	409 692 8319	IC NJM2823F		303 409 3426	CERAMIC 0.1U K 16V
IC6551	309 362 1127	IC BA6287F	C1312	303 438 0219	CERAMIC 0.1U K 16V
IC6681	409 689 2115	IC MP2106DK		303 409 3426	CERAMIC 0.1U K 16V
IC6691	310 595 8009	IC PQ1LAX95MSPQ	C1313	303 438 0219	CERAMIC 0.1U K 16V
IC7601	410 643 5100	IC PQ070XNB1ZPH		303 409 3426	CERAMIC 0.1U K 16V
IC7611	410 663 4800	IC PQ035ZN01ZPH	C1321	303 438 0219	CERAMIC 0.1U K 16V
IC7631	309 461 7822	IC PQ20WZ11		303 409 3426	CERAMIC 0.1U K 16V
IC7641	410 643 5100	IC PQ070XNB1ZPH	C1322	303 438 0219	CERAMIC 0.1U K 16V
IC7651	310 595 8009	IC PQ1LAX95MSPQ		303 409 3426	CERAMIC 0.1U K 16V
IC7661	310 595 8009	IC PQ1LAX95MSPQ	C1323	303 438 0219	CERAMIC 0.1U K 16V
IC7671	309 675 1316	IC FA7703V-H1		303 409 3426	CERAMIC 0.1U K 16V
IC7691	309 368 5812	IC TC7SH08FU(TE85L)	C1324	303 438 0219	CERAMIC 0.1U K 16V
IC7801	309 567 3213	IC FA7711V-TE1		303 409 3426	CERAMIC 0.1U K 16V
IC7802	309 531 6229	IC FA7701V-TE1	C1326	303 438 0219	CERAMIC 0.1U K 16V
IC7861	309 461 7822	IC PQ20WZ11		303 409 3426	CERAMIC 0.1U K 16V
IC8001	409 683 1817	IC SII9125CTU	C1327	303 438 0219	CERAMIC 0.1U K 16V
IC8081	310 595 8009	IC PQ1LAX95MSPQ		303 409 3426	CERAMIC 0.1U K 16V
IC8091	410 643 5100	IC PQ070XNB1ZPH	C1328	303 438 0219	CERAMIC 0.1U K 16V
IC8101	310 517 6809	IC TC74LVX4053FT		303 409 3426	CERAMIC 0.1U K 16V
IC8111	309 558 7213	IC 24C02CT-I/SNG	C1329	303 438 0219	CERAMIC 0.1U K 16V
IC8121	310 479 4004	IC TC7WBD125AFK		303 409 3426	CERAMIC 0.1U K 16V
IC8131	310 517 6809	IC TC74LVX4053FT	C1331	303 438 0219	CERAMIC 0.1U K 16V
IC8141	309 558 7213	IC 24C02CT-I/SNG		303 409 3426	CERAMIC 0.1U K 16V
IC8821	309 368 5812	IC TC7SH08FU(TE85L)	C1333	303 438 0219	CERAMIC 0.1U K 16V

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Key. No.	Part No.	Description	Key. No.	Part No.	Description
C3404	303 409 3426	CERAMIC 0.1U K 16V	C3577	403 455 1418	CERAMIC 2.2U K 16V
	303 438 0219	CERAMIC 0.1U K 16V	C3578	403 455 1418	CERAMIC 2.2U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C3579	403 455 1418	CERAMIC 2.2U K 16V
C3406	303 438 0219	CERAMIC 0.1U K 16V	C358	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C341	303 438 0219	CERAMIC 0.1U K 16V	C3581	403 455 1418	CERAMIC 2.2U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C3582	403 455 1418	CERAMIC 2.2U K 16V
C342	303 438 0219	CERAMIC 0.1U K 16V	C3583	403 455 1418	CERAMIC 2.2U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C359	303 438 0219	CERAMIC 0.1U K 16V
C343	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C361	303 438 0219	CERAMIC 0.1U K 16V
C344	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C362	303 438 0219	CERAMIC 0.1U K 16V
C346	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C363	303 438 0219	CERAMIC 0.1U K 16V
C347	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C364	303 438 0219	CERAMIC 0.1U K 16V
C3471	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C366	303 438 0219	CERAMIC 0.1U K 16V
C3472	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C367	403 455 1012	CERAMIC 1U K 10V
C348	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C368	303 438 0219	CERAMIC 0.1U K 16V
C349	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C369	303 438 0219	CERAMIC 0.1U K 16V
C3502	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3504	403 455 1418	CERAMIC 2.2U K 16V	C371	303 438 0219	CERAMIC 0.1U K 16V
C3507	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3509	403 455 1418	CERAMIC 2.2U K 16V	C372	303 358 3215	CERAMIC 10U K 6.3V
C351	303 438 0219	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C373	303 438 0219	CERAMIC 0.1U K 16V
C3512	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	403 455 1418	CERAMIC 2.2U K 16V	C374	403 455 1012	CERAMIC 1U K 10V
C3514	403 455 1418	CERAMIC 2.2U K 16V		303 433 1112	CERAMIC 1U K 10V
C3516	403 455 1418	CERAMIC 2.2U K 16V	C376	303 438 0219	CERAMIC 0.1U K 16V
C3517	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3518	403 455 1418	CERAMIC 2.2U K 16V	C377	403 455 1012	CERAMIC 1U K 10V
C3519	403 455 1418	CERAMIC 2.2U K 16V		303 433 1112	CERAMIC 1U K 10V
C352	403 455 1012	CERAMIC 1U K 10V	C378	303 438 0219	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
C3521	403 455 1418	CERAMIC 2.2U K 16V	C379	403 455 1012	CERAMIC 1U K 10V
C3522	403 455 1418	CERAMIC 2.2U K 16V		303 433 1112	CERAMIC 1U K 10V
C3523	403 455 1418	CERAMIC 2.2U K 16V	C3801	303 372 7510	CERAMIC 2.2U K 6.3V
C353	303 438 0219	CERAMIC 0.1U K 16V	C3802	303 372 7510	CERAMIC 2.2U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C3803	303 372 7510	CERAMIC 2.2U K 6.3V
C3532	403 455 1418	CERAMIC 2.2U K 16V	C3804	303 372 7510	CERAMIC 2.2U K 6.3V
	403 455 1418	CERAMIC 2.2U K 16V	C3806	303 372 7510	CERAMIC 2.2U K 6.3V
C3534	403 455 1418	CERAMIC 2.2U K 16V	C381	303 438 0219	CERAMIC 0.1U K 16V
C3537	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3539	403 455 1418	CERAMIC 2.2U K 16V	C382	403 455 1012	CERAMIC 1U K 10V
C354	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C383	303 438 0219	CERAMIC 0.1U K 16V
C3542	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3543	403 455 1418	CERAMIC 2.2U K 16V	C384	303 438 0219	CERAMIC 0.1U K 16V
C3544	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3546	403 455 1418	CERAMIC 2.2U K 16V	C385	303 438 0219	CERAMIC 0.1U K 16V
C3547	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3548	403 455 1418	CERAMIC 2.2U K 16V	C386	403 455 1012	CERAMIC 1U K 10V
C3549	403 455 1418	CERAMIC 2.2U K 16V		303 433 1112	CERAMIC 1U K 10V
C3551	403 455 1418	CERAMIC 2.2U K 16V	C387	403 455 1012	CERAMIC 1U K 10V
C3552	403 455 1418	CERAMIC 2.2U K 16V		303 433 1112	CERAMIC 1U K 10V
C3553	403 455 1418	CERAMIC 2.2U K 16V	C388	403 455 1012	CERAMIC 1U K 10V
C356	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C389	303 438 0219	CERAMIC 0.1U K 16V
C3562	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3564	403 455 1418	CERAMIC 2.2U K 16V	C391	303 438 0219	CERAMIC 0.1U K 16V
C3567	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3569	403 455 1418	CERAMIC 2.2U K 16V	C392	303 438 0219	CERAMIC 0.1U K 16V
	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C357	303 409 3426	CERAMIC 0.1U K 16V	C393	303 438 0219	CERAMIC 0.1U K 16V
	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3572	403 455 1418	CERAMIC 2.2U K 16V	C394	303 438 0219	CERAMIC 0.1U K 16V
C3573	403 455 1418	CERAMIC 2.2U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3574	403 455 1418	CERAMIC 2.2U K 16V			
C3576	403 455 1418	CERAMIC 2.2U K 16V			

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Key. No.	Part No.	Description	Key. No.	Part No.	Description
	303 433 1112	CERAMIC 1U K 10V	C4806	303 276 1317	CERAMIC 1000P K 50V
C4468	403 455 1012	CERAMIC 1U K 10V	C4807	303 394 1312	ELECT100U M 6.3V
	303 433 1112	CERAMIC 1U K 10V		303 387 4917	ELECT100U M 6.3V
C4469	403 455 1012	CERAMIC 1U K 10V	C4808	303 438 0219	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
C447	303 369 0527	CERAMIC 0.01U K 25V	C481	303 369 0527	CERAMIC 0.01U K 25V
C4471	403 455 1012	CERAMIC 1U K 10V	C482	303 369 0527	CERAMIC 0.01U K 25V
	303 433 1112	CERAMIC 1U K 10V	C483	303 369 0527	CERAMIC 0.01U K 25V
C448	303 369 0527	CERAMIC 0.01U K 25V	C4833	303 438 0219	CERAMIC 0.1U K 16V
C449	303 369 0527	CERAMIC 0.01U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C451	303 369 0527	CERAMIC 0.01U K 25V	C484	303 369 0527	CERAMIC 0.01U K 25V
C452	303 369 0527	CERAMIC 0.01U K 25V	C4851	303 441 9810	CERAMIC 0.01U K 50V
C453	303 369 0527	CERAMIC 0.01U K 25V	C486	303 369 0527	CERAMIC 0.01U K 25V
C454	303 369 0527	CERAMIC 0.01U K 25V	C487	303 369 0527	CERAMIC 0.01U K 25V
C456	303 369 0527	CERAMIC 0.01U K 25V	C488	303 369 0527	CERAMIC 0.01U K 25V
C457	303 369 0527	CERAMIC 0.01U K 25V	C489	303 369 0527	CERAMIC 0.01U K 25V
C458	303 369 0527	CERAMIC 0.01U K 25V	C490	303 369 0527	CERAMIC 0.01U K 25V
C459	303 369 0527	CERAMIC 0.01U K 25V	C491	303 369 0527	CERAMIC 0.01U K 25V
C4601	303 438 0219	CERAMIC 0.1U K 16V	C492	303 369 0527	CERAMIC 0.01U K 25V
	303 409 3426	CERAMIC 0.1U K 16V	C493	303 369 0527	CERAMIC 0.01U K 25V
C4602	303 394 1312	ELECT100U M 6.3V	C494	303 369 0527	CERAMIC 0.01U K 25V
	303 387 4917	ELECT100U M 6.3V	C495	303 369 0527	CERAMIC 0.01U K 25V
C4603	303 397 5713	ELECT100U M 10V	C496	303 369 0527	CERAMIC 0.01U K 25V
	303 387 5617	ELECT100U M 10V	C497	303 369 0527	CERAMIC 0.01U K 25V
C4606	303 342 3313	CERAMIC 0.1U K 25V	C498	303 369 0527	CERAMIC 0.01U K 25V
C4607	303 376 3112	ELECT100U M 25V	C499	303 369 0527	CERAMIC 0.01U K 25V
	303 374 7815	ELECT100UM 25V	C5601	403 455 1012	CERAMIC 1U K 10V
	303 444 0111	ELECT100U M 25V		303 433 1112	CERAMIC 1U K 10V
C4608	303 444 3310	CERAMIC 0.022U K50V	C5602	403 455 1012	CERAMIC 1U K 10V
C4609	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C5603	303 394 1312	ELECT100U M 6.3V
C461	303 369 0527	CERAMIC 0.01U K 25V		303 387 4917	ELECT100U M 6.3V
C4611	303 397 5713	ELECT100U M 10V	C5611	403 455 1012	CERAMIC 1U K 10V
	303 387 5617	ELECT100U M 10V		303 433 1112	CERAMIC 1U K 10V
C4613	303 438 0219	CERAMIC 0.1U K 16V	C5612	303 358 3215	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C4614	303 444 3310	CERAMIC 0.022U K50V	C5613	303 347 5510	POS-SOLID 470U M 4V
C4616	303 397 5713	ELECT100U M 10V	C5621	303 392 5015	CERAMIC 22U M 6.3V
	303 387 5617	ELECT100U M 10V		303 443 9214	CERAMIC 22U M 6.3V
C4618	303 394 9318	ELECT220U M 6.3V	C5623	303 069 5614	CERAMIC 0.01U K 50V
	303 413 1811	ELECT220U M 6.3V	C5624	403 454 6810	CERAMIC 47U M 10V
	303 387 5112	ELECT220U M 6.3V	C5627	303 369 0527	CERAMIC 0.01U K 25V
C4619	303 376 3112	ELECT100U M 25V	C5628	303 438 0219	CERAMIC 0.1U K 16V
	303 374 7815	ELECT100UM 25V		303 409 3426	CERAMIC 0.1U K 16V
	303 444 0111	ELECT100U M 25V	C5629	403 455 1012	CERAMIC 1U K 10V
C462	303 369 0527	CERAMIC 0.01U K 25V		303 433 1112	CERAMIC 1U K 10V
C4620	403 455 1012	CERAMIC 1U K 10V	C5631	303 438 0219	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
C4621	403 455 1012	CERAMIC 1U K 10V	C5641	403 455 1012	CERAMIC 1U K 10V
	303 433 1112	CERAMIC 1U K 10V		303 433 1112	CERAMIC 1U K 10V
C463	303 369 0527	CERAMIC 0.01U K 25V	C5642	403 455 1012	CERAMIC 1U K 10V
C464	303 369 0527	CERAMIC 0.01U K 25V		303 433 1112	CERAMIC 1U K 10V
C465	303 372 7510	CERAMIC 2.2U K 6.3V	C5643	303 394 1312	ELECT100U M 6.3V
C466	303 369 0527	CERAMIC 0.01U K 25V		303 387 4917	ELECT100U M 6.3V
C467	303 369 0527	CERAMIC 0.01U K 25V	C5651	403 455 1012	CERAMIC 1U K 10V
C468	303 369 0527	CERAMIC 0.01U K 25V		303 433 1112	CERAMIC 1U K 10V
C469	303 369 0527	CERAMIC 0.01U K 25V	C5652	403 455 1012	CERAMIC 1U K 10V
C471	303 369 0527	CERAMIC 0.01U K 25V		303 433 1112	CERAMIC 1U K 10V
C472	303 369 0527	CERAMIC 0.01U K 25V	C5653	303 394 1312	ELECT100U M 6.3V
C473	303 369 0527	CERAMIC 0.01U K 25V		303 387 4917	ELECT100U M 6.3V
C474	303 369 0527	CERAMIC 0.01U K 25V	C5661	303 392 5015	CERAMIC 22U M 6.3V
C476	303 369 0527	CERAMIC 0.01U K 25V		303 443 9214	CERAMIC 22U M 6.3V
C477	303 369 0527	CERAMIC 0.01U K 25V	C5663	303 069 5614	CERAMIC 0.01U K 50V
C478	303 369 0527	CERAMIC 0.01U K 25V	C5664	403 454 6810	CERAMIC 47U M 10V
C479	303 369 0527	CERAMIC 0.01U K 25V	C5667	303 369 0527	CERAMIC 0.01U K 25V
C4801	303 438 0219	CERAMIC 0.1U K 16V	C5668	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C4802	303 438 0219	CERAMIC 0.1U K 16V	C5669	403 455 1012	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
C4803	303 438 0219	CERAMIC 0.1U K 16V	C5686	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C4804	303 438 0219	CERAMIC 0.1U K 16V	C5687	303 397 5713	ELECT100U M 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 387 5617	ELECT100U M 10V

Key. No.	Part No.	Description	Key. No.	Part No.	Description
C5688	303 438 0219	CERAMIC 0.1U K 16V		303 387 4917	ELECT100U M 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C7631	303 342 3313	CERAMIC 0.1U K 25V
C5691	303 438 0219	CERAMIC 0.1U K 16V	C7633	303 398 4111	ELECT47U M 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 387 6515	ELECT47U M 16V
C5701	403 455 1012	CERAMIC 1U K 10V	C7634	303 397 4211	POS-SOLID 47U M 20V
	303 433 1112	CERAMIC 1U K 10V	C7641	403 455 1012	CERAMIC 1U K 10V
C5702	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C7642	303 358 3215	CERAMIC 10U K 6.3V
C5706	303 392 5015	CERAMIC 22U M 6.3V		303 368 7319	CERAMIC 10U K 6.3V
	303 443 9214	CERAMIC 22U M 6.3V	C7643	403 454 6810	CERAMIC 47U M 10V
C5707	303 444 3310	CERAMIC 0.022U K 50V	C7651	403 455 1012	CERAMIC 1U K 10V
C5708	403 455 1012	CERAMIC 1U K 10V		303 433 1112	CERAMIC 1U K 10V
	303 433 1112	CERAMIC 1U K 10V	C7652	403 455 1012	CERAMIC 1U K 10V
C5709	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C7653	303 392 1215	ELECT47U M 6.3V
C5731	303 398 4111	ELECT47U M 16V		303 387 5310	ELECT47U M 6.3V
	303 387 6515	ELECT47U M 16V	C7661	403 455 1012	CERAMIC 1U K 10V
C5732	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C7662	403 455 1012	CERAMIC 1U K 10V
C5761	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C7663	303 392 1215	ELECT47U M 6.3V
C5771	403 455 1012	CERAMIC 1U K 10V		303 387 5310	ELECT47U M 6.3V
	303 433 1112	CERAMIC 1U K 10V	C7671	303 438 0219	CERAMIC 0.1U K 16V
C5772	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C7672	303 369 0527	CERAMIC 0.01U K 25V
C5773	303 438 0219	CERAMIC 0.1U K 16V	C7673	303 155 2312	CERAMIC 4700P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C7674	303 398 5415	ELECT47U M 25V
C5781	303 396 9613	CERAMIC 1U K 25V		303 387 7314	ELECT47U M 25V
	303 397 7618	CERAMIC 1U K 25V	C7675	403 454 6810	CERAMIC 47U M 10V
C5782	303 398 4111	ELECT47U M 16V	C7681	303 441 9810	CERAMIC 0.01U K 50V
	303 387 6515	ELECT47U M 16V	C7691	303 441 9810	CERAMIC 0.01U K 50V
C5791	403 455 1012	CERAMIC 1U K 10V	C7692	303 441 9810	CERAMIC 0.01U K 50V
	303 433 1112	CERAMIC 1U K 10V	C7801	303 342 3313	CERAMIC 0.1U K 25V
C6551	303 438 0219	CERAMIC 0.1U K 16V	C7802	403 455 1012	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
C6552	303 438 0219	CERAMIC 0.1U K 16V	C7803	303 379 7315	CERAMIC 4700P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C7804	303 438 0219	CERAMIC 0.1U K 16V
C6553	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C7806	303 438 0219	CERAMIC 0.1U K 16V
C6554	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C7807	303 379 7315	CERAMIC 4700P K 50V
C6627	303 342 3313	CERAMIC 0.1U K 25V	C7808	303 379 7315	CERAMIC 4700P K 50V
C6681	303 358 3215	CERAMIC 10U K 6.3V	C7809	303 342 3313	CERAMIC 0.1U K 25V
	303 368 7319	CERAMIC 10U K 6.3V	C7811	303 438 0219	CERAMIC 0.1U K 16V
C6682	303 069 5614	CERAMIC 0.01U K 50V		303 409 3426	CERAMIC 0.1U K 16V
C6683	403 454 6810	CERAMIC 47U M 10V	C7812	303 379 7315	CERAMIC 4700P K 50V
C6684	303 369 0527	CERAMIC 0.01U K 25V	C7821	303 342 3313	CERAMIC 0.1U K 25V
C6685	403 455 1012	CERAMIC 1U K 10V	C7822	303 376 3112	ELECT100U M 25V
	303 433 1112	CERAMIC 1U K 10V		303 374 7815	ELECT100UM 25V
C6686	303 369 0527	CERAMIC 0.01U K 25V		303 444 0111	ELECT100U M 25V
C6687	303 369 0527	CERAMIC 0.01U K 25V	C7823	303 438 0219	CERAMIC 0.1U K 16V
C6688	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C7831	303 342 3313	CERAMIC 0.1U K 25V
C6689	403 455 1012	CERAMIC 1U K 10V	C7832	303 376 3112	ELECT100U M 25V
	303 433 1112	CERAMIC 1U K 10V		303 374 7815	ELECT100UM 25V
C6691	403 455 1012	CERAMIC 1U K 10V		303 444 0111	ELECT100U M 25V
	303 433 1112	CERAMIC 1U K 10V	C7833	303 438 0219	CERAMIC 0.1U K 16V
C6692	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C7841	303 342 3313	CERAMIC 0.1U K 25V
C6693	303 394 1312	ELECT100U M 6.3V	C7842	303 376 3112	ELECT100U M 25V
	303 387 4917	ELECT100U M 6.3V		303 374 7815	ELECT100UM 25V
C7601	403 455 1012	CERAMIC 1U K 10V		303 444 0111	ELECT100U M 25V
	303 433 1112	CERAMIC 1U K 10V	C7843	303 438 0219	CERAMIC 0.1U K 16V
C7602	303 358 3215	CERAMIC 10U K 6.3V		303 409 3426	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V	C7851	303 342 3313	CERAMIC 0.1U K 25V
C7603	303 394 1312	ELECT100U M 6.3V	C7852	303 376 3112	ELECT100U M 25V
	303 387 4917	ELECT100U M 6.3V		303 374 7815	ELECT100UM 25V
C7604	303 372 7510	CERAMIC 2.2U K 6.3V		303 444 0111	ELECT100U M 25V
C7611	403 455 1012	CERAMIC 1U K 10V	C7853	303 438 0219	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
C7612	303 358 3215	CERAMIC 10U K 6.3V	C7861	303 342 3313	CERAMIC 0.1U K 25V
	303 368 7319	CERAMIC 10U K 6.3V	C7863	303 376 3112	ELECT100U M 25V
C7613	303 394 1312	ELECT100U M 6.3V		303 374 7815	ELECT100UM 25V

Key. No.	Part No.	Description	Key. No.	Part No.	Description
C7864	303 444 0111	ELECT100U M 25V		303 409 3426	CERAMIC 0.1U K 16V
	303 376 3112	ELECT100U M 25V	C8041	303 276 1317	CERAMIC 1000P K 50V
	303 374 7815	ELECT100UM 25V	C8042	303 276 1317	CERAMIC 1000P K 50V
	303 444 0111	ELECT100U M 25V	C8043	303 438 0219	CERAMIC 0.1U K 16V
C7871	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8044	303 276 1317	CERAMIC 1000P K 50V
C7872	303 438 0219	CERAMIC 0.1U K 16V	C8046	303 276 1317	CERAMIC 1000P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8047	303 276 1317	CERAMIC 1000P K 50V
C7873	303 438 0219	CERAMIC 0.1U K 16V	C8048	303 276 1317	CERAMIC 1000P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8049	303 438 0219	CERAMIC 0.1U K 16V
C7874	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8051	303 358 3215	CERAMIC 10U K 6.3V
C7876	303 438 0219	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C8052	303 358 3215	CERAMIC 10U K 6.3V
C7877	303 276 3113	CERAMIC 33P J 50V		303 368 7319	CERAMIC 10U K 6.3V
C7891	303 438 0219	CERAMIC 0.1U K 16V	C8053	303 276 1317	CERAMIC 1000P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8054	303 276 1317	CERAMIC 1000P K 50V
C8001	303 438 0219	CERAMIC 0.1U K 16V	C8056	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8002	303 276 1317	CERAMIC 1000P K 50V	C8057	303 276 1317	CERAMIC 1000P K 50V
C8003	303 438 0219	CERAMIC 0.1U K 16V	C8058	303 276 1317	CERAMIC 1000P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8059	303 276 1317	CERAMIC 1000P K 50V
C8004	303 438 0219	CERAMIC 0.1U K 16V	C8061	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8006	303 438 0219	CERAMIC 0.1U K 16V	C8062	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8007	303 438 0219	CERAMIC 0.1U K 16V	C8063	303 276 1317	CERAMIC 1000P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8081	403 455 1012	CERAMIC 1U K 10V
C8008	303 438 0219	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C8082	403 455 1012	CERAMIC 1U K 10V
C8009	303 276 1317	CERAMIC 1000P K 50V		303 433 1112	CERAMIC 1U K 10V
C801	303 438 0219	CERAMIC 0.1U K 16V	C8083	303 394 1312	ELECT100U M 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 387 4917	ELECT100U M 6.3V
C8011	303 438 0219	CERAMIC 0.1U K 16V	C8091	403 455 1012	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
C8012	303 438 0219	CERAMIC 0.1U K 16V	C8092	303 358 3215	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C8013	303 438 0219	CERAMIC 0.1U K 16V	C8093	303 379 0217	POS-SOLID 68U M 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C8101	303 438 0219	CERAMIC 0.1U K 16V
C8014	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8111	303 438 0219	CERAMIC 0.1U K 16V
C8016	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8121	303 438 0219	CERAMIC 0.1U K 16V
C8017	303 276 1317	CERAMIC 1000P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C8018	303 438 0219	CERAMIC 0.1U K 16V	C8131	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8019	303 358 3215	CERAMIC 10U K 6.3V	C8141	303 438 0219	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V		303 409 3426	CERAMIC 0.1U K 16V
C8021	303 276 1317	CERAMIC 1000P K 50V	C8201	303 438 0219	CERAMIC 0.1U K 16V
	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8022	303 438 0219	CERAMIC 0.1U K 16V	C8202	303 424 7017	CERAMIC 0.047U K25V
	303 409 3426	CERAMIC 0.1U K 16V	C8203	303 424 7017	CERAMIC 0.047U K25V
C8023	303 276 1317	CERAMIC 1000P K 50V	C8204	303 424 7017	CERAMIC 0.047U K25V
	303 438 0219	CERAMIC 0.1U K 16V	C8206	303 438 0219	CERAMIC 0.1U K 16V
C8024	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 438 0219	CERAMIC 0.1U K 16V	C8207	303 438 0219	CERAMIC 0.1U K 16V
C8025	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8208	303 438 0219	CERAMIC 0.1U K 16V
C8026	303 276 1317	CERAMIC 1000P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C8027	303 276 1317	CERAMIC 1000P K 50V	C8209	303 438 0219	CERAMIC 0.1U K 16V
C8028	303 276 1317	CERAMIC 1000P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C8029	303 276 2819	CERAMIC 18P J 50V	C8211	303 424 7017	CERAMIC 0.047U K25V
C8031	303 276 2819	CERAMIC 18P J 50V	C8212	303 424 7017	CERAMIC 0.047U K25V
C8032	303 441 9810	CERAMIC 0.01U K 50V	C8213	303 438 0219	CERAMIC 0.1U K 16V
C8033	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C8214	303 424 7017	CERAMIC 0.047U K25V
C8034	303 438 0219	CERAMIC 0.1U K 16V	C8215	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8035	303 276 1317	CERAMIC 1000P K 50V	C8216	303 438 0219	CERAMIC 0.1U K 16V
C8036	303 276 1317	CERAMIC 1000P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C8037	303 358 3215	CERAMIC 10U K 6.3V	C8217	303 438 0219	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V		303 409 3426	CERAMIC 0.1U K 16V
C8038	303 358 3215	CERAMIC 10U K 6.3V	C8218	303 438 0219	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V			
C8039	303 438 0219	CERAMIC 0.1U K 16V			

Key. No.	Part No.	Description	Key. No.	Part No.	Description
	303 409 3426	CERAMIC 0.1U K 16V	C9726	403 455 1418	CERAMIC 2.2U K 16V
C8219	303 424 7017	CERAMIC 0.047U K25V	C9727	403 455 1418	CERAMIC 2.2U K 16V
C8221	303 424 7017	CERAMIC 0.047U K25V	C9728	303 396 9613	CERAMIC 1U K 25V
C8222	303 438 0219	CERAMIC 0.1U K 16V		303 397 7618	CERAMIC 1U K 25V
	303 409 3426	CERAMIC 0.1U K 16V	C9729	403 455 1418	CERAMIC 2.2U K 16V
C8223	303 424 7017	CERAMIC 0.047U K25V	C9731	303 394 5815	CERAMIC 4.7U K 16V
C8224	303 424 7017	CERAMIC 0.047U K25V	C9732	303 438 0219	CERAMIC 0.1U K 16V
C8226	303 424 7017	CERAMIC 0.047U K25V		303 409 3426	CERAMIC 0.1U K 16V
C8227	303 424 7017	CERAMIC 0.047U K25V	C9733	303 438 0219	CERAMIC 0.1U K 16V
C8228	303 424 7017	CERAMIC 0.047U K25V		303 409 3426	CERAMIC 0.1U K 16V
C8229	303 438 0219	CERAMIC 0.1U K 16V	C9734	303 394 5815	CERAMIC 4.7U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9736	403 455 1418	CERAMIC 2.2U K 16V
C8231	303 424 7017	CERAMIC 0.047U K25V	C9737	303 396 9613	CERAMIC 1U K 25V
C8232	303 438 0219	CERAMIC 0.1U K 16V		303 397 7618	CERAMIC 1U K 25V
	303 409 3426	CERAMIC 0.1U K 16V	C9738	403 455 1418	CERAMIC 2.2U K 16V
C8233	303 438 0219	CERAMIC 0.1U K 16V	C9739	303 394 5815	CERAMIC 4.7U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9741	303 438 0219	CERAMIC 0.1U K 16V
C8234	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9751	303 155 1612	CERAMIC 33P J 50V
C8236	303 438 0219	CERAMIC 0.1U K 16V	C9752	303 155 1612	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C9753	303 155 1612	CERAMIC 33P J 50V
C8237	303 438 0219	CERAMIC 0.1U K 16V	C9754	303 155 1612	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C9756	303 394 5815	CERAMIC 4.7U K 16V
C8238	303 438 0219	CERAMIC 0.1U K 16V	C9757	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C871	403 455 1012	CERAMIC 1U K 10V	C9758	303 155 1612	CERAMIC 33P J 50V
	303 433 1112	CERAMIC 1U K 10V	C9759	303 394 5815	CERAMIC 4.7U K 16V
C881	403 455 1012	CERAMIC 1U K 10V	C9761	303 438 0219	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
C8821	303 438 0219	CERAMIC 0.1U K 16V	C9762	303 155 1612	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C9763	303 394 5815	CERAMIC 4.7U K 16V
C8822	303 438 0219	CERAMIC 0.1U K 16V	C9764	303 438 0219	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C8831	303 438 0219	CERAMIC 0.1U K 16V	C9766	303 394 5815	CERAMIC 4.7U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9767	303 438 0219	CERAMIC 0.1U K 16V
C8841	303 276 3113	CERAMIC 33P J 50V		303 409 3426	CERAMIC 0.1U K 16V
C8842	303 276 3113	CERAMIC 33P J 50V	C9768	303 282 5118	CERAMIC 470P K 50V
C8843	303 438 0219	CERAMIC 0.1U K 16V	C9769	303 282 5118	CERAMIC 470P K 50V
	303 409 3426	CERAMIC 0.1U K 16V	C9771	303 282 5118	CERAMIC 470P K 50V
C8852	303 438 0219	CERAMIC 0.1U K 16V	C9781	303 394 5815	CERAMIC 4.7U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9782	303 438 0219	CERAMIC 0.1U K 16V
C8853	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9783	303 438 0219	CERAMIC 0.1U K 16V
C8856	303 438 0219	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9784	303 394 5815	CERAMIC 4.7U K 16V
C8861	303 438 0219	CERAMIC 0.1U K 16V	C9786	303 401 5715	CERAMIC 0.33U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9787	303 401 5715	CERAMIC 0.33U K 16V
C8862	303 438 0219	CERAMIC 0.1U K 16V	C9789	303 401 5715	CERAMIC 0.33U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9791	303 401 5715	CERAMIC 0.33U K 16V
C8863	303 438 0219	CERAMIC 0.1U K 16V	C9792	303 401 5715	CERAMIC 0.33U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9793	303 401 5715	CERAMIC 0.33U K 16V
C891	303 441 9810	CERAMIC 0.01U K 50V	RESISTOR		
C9701	303 438 0219	CERAMIC 0.1U K 16V	R1001	301 225 8110	MT-GLAZE 10 JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1002	301 224 9316	MT-GLAZE 1K JA 1/16W
C9702	303 394 5815	CERAMIC 4.7U K 16V	R1003	301 225 0213	MT-GLAZE 3.3K JA 1/16W
C9703	403 455 1418	CERAMIC 2.2U K 16V	R1011	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9704	303 396 9613	CERAMIC 1U K 25V	R1012	301 237 2519	MT-GLAZE 4.7 JA 1/16W
	303 397 7618	CERAMIC 1U K 25V	R1013	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9706	303 396 9613	CERAMIC 1U K 25V	R1014	301 237 2519	MT-GLAZE 4.7 JA 1/16W
	303 397 7618	CERAMIC 1U K 25V	R1016	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9707	403 455 1418	CERAMIC 2.2U K 16V	R1017	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9708	403 455 1418	CERAMIC 2.2U K 16V	R1018	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9709	303 396 9613	CERAMIC 1U K 25V	R1019	301 237 2519	MT-GLAZE 4.7 JA 1/16W
	303 397 7618	CERAMIC 1U K 25V	R1021	301 225 8110	MT-GLAZE 10 JA 1/16W
C9711	303 394 5815	CERAMIC 4.7U K 16V	R1022	301 224 9316	MT-GLAZE 1K JA 1/16W
C9712	303 438 0219	CERAMIC 0.1U K 16V	R1023	301 225 0213	MT-GLAZE 3.3K JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1031	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9721	303 438 0219	CERAMIC 0.1U K 16V	R1032	301 237 2519	MT-GLAZE 4.7 JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1033	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9722	303 394 5815	CERAMIC 4.7U K 16V	R1034	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9723	403 455 1418	CERAMIC 2.2U K 16V	R1036	301 237 2519	MT-GLAZE 4.7 JA 1/16W
C9724	303 396 9613	CERAMIC 1U K 25V	R1037	301 237 2519	MT-GLAZE 4.7 JA 1/16W
	303 397 7618	CERAMIC 1U K 25V	R1038	301 237 2519	MT-GLAZE 4.7 JA 1/16W

Key. No.	Part No.	Description	Key. No.	Part No.	Description
R1039	301 237 2519	MT-GLAZE 4.7 JA 1/16W	R2868	301 224 9019	MT-GLAZE 10K JA 1/16W
R1051	301 294 2712	MT-GLAZE 150 FA 1/16W	R3001	301 294 2712	MT-GLAZE 150 FA 1/16W
R1052	301 294 2712	MT-GLAZE 150 FA 1/16W	R3002	301 294 2712	MT-GLAZE 150 FA 1/16W
R1053	301 294 2712	MT-GLAZE 150 FA 1/16W	R3003	301 294 2712	MT-GLAZE 150 FA 1/16W
R1054	301 225 1814	MT-GLAZE 47 JA 1/16W	R3004	301 294 2712	MT-GLAZE 150 FA 1/16W
R1056	301 225 1814	MT-GLAZE 47 JA 1/16W	R3006	301 294 2712	MT-GLAZE 150 FA 1/16W
R1057	301 225 1814	MT-GLAZE 47 JA 1/16W	R3007	301 294 2712	MT-GLAZE 150 FA 1/16W
R1058	301 294 2712	MT-GLAZE 150 FA 1/16W	R3008	301 225 1814	MT-GLAZE 47 JA 1/16W
R1059	301 294 2712	MT-GLAZE 150 FA 1/16W	R3012	301 225 1814	MT-GLAZE 47 JA 1/16W
R1061	301 294 2712	MT-GLAZE 150 FA 1/16W	R3016	301 225 1814	MT-GLAZE 47 JA 1/16W
R1062	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R3018	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1063	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R3019	301 225 1814	MT-GLAZE 47 JA 1/16W
R1064	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R302	301 338 1015	MT-GLAZE 49.9 DA 1/16W
R1068	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3022	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1069	301 238 4512	MT-GLAZE 47 JA 1/3W	R3023	301 225 1814	MT-GLAZE 47 JA 1/16W
R1071	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3026	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1073	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3027	301 225 1814	MT-GLAZE 47 JA 1/16W
R1081	301 225 1418	MT-GLAZE 47K JA 1/16W	R3029	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1082	301 225 1418	MT-GLAZE 47K JA 1/16W	R303	301 338 1015	MT-GLAZE 49.9 DA 1/16W
R1084	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3031	301 294 2712	MT-GLAZE 150 FA 1/16W
R1088	301 224 9019	MT-GLAZE 10K JA 1/16W	R3032	301 294 2712	MT-GLAZE 150 FA 1/16W
R1200	301 263 7420	MT-GLAZE 75 JA 1/16W	R3033	301 294 2712	MT-GLAZE 150 FA 1/16W
R1245	301 226 5514	MT-GLAZE 120 JA 1/16W	R3034	301 294 2712	MT-GLAZE 150 FA 1/16W
R1247	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3036	301 294 2712	MT-GLAZE 150 FA 1/16W
R1261	301 294 2712	MT-GLAZE 150 FA 1/16W	R3037	301 294 2712	MT-GLAZE 150 FA 1/16W
R1262	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R304	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1263	301 294 2712	MT-GLAZE 150 FA 1/16W	R3051	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1264	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3054	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1274	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R3056	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1275	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R306	301 304 3616	MT-GLAZE 1K DA 1/16W
R1301	301 303 4010	MT-GLAZE 1.2K DA 1/16W	R307	401 345 6215	MT-GLAZE 2K DA 1/16W
R1302	301 303 4010	MT-GLAZE 1.2K DA 1/16W	R312	301 224 9712	MT-GLAZE 22 JA 1/16W
R1343	301 224 9019	MT-GLAZE 10K JA 1/16W	R313	301 224 9712	MT-GLAZE 22 JA 1/16W
R1344	301 224 9019	MT-GLAZE 10K JA 1/16W	R314	301 224 9712	MT-GLAZE 22 JA 1/16W
R1351	301 224 9415	MT-GLAZE 1M JA 1/16W	R316	301 224 9712	MT-GLAZE 22 JA 1/16W
R1358	401 342 7314	MT-GLAZE 23.2K F A 1/16W	R317	301 224 9712	MT-GLAZE 22 JA 1/16W
R1391	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R318	301 224 9712	MT-GLAZE 22 JA 1/16W
R1392	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R319	301 225 1814	MT-GLAZE 47 JA 1/16W
R1393	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R321	301 225 1814	MT-GLAZE 47 JA 1/16W
R1394	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R322	301 225 1814	MT-GLAZE 47 JA 1/16W
R1401	301 224 9316	MT-GLAZE 1K JA 1/16W	R323	301 225 1814	MT-GLAZE 47 JA 1/16W
R1402	301 224 9316	MT-GLAZE 1K JA 1/16W	R324	301 298 5511	MT-GLAZE 8.2K F A 1/16W
R1408	301 224 9316	MT-GLAZE 1K JA 1/16W	R325	301 224 9019	MT-GLAZE 10K JA 1/16W
R1411	301 224 9712	MT-GLAZE 22 JA 1/16W	R326	301 224 9019	MT-GLAZE 10K JA 1/16W
R1412	301 224 9712	MT-GLAZE 22 JA 1/16W	R327	301 224 9019	MT-GLAZE 10K JA 1/16W
R1413	301 224 9712	MT-GLAZE 22 JA 1/16W	R328	301 224 9019	MT-GLAZE 10K JA 1/16W
R1414	301 224 9712	MT-GLAZE 22 JA 1/16W	R329	301 224 9019	MT-GLAZE 10K JA 1/16W
R1416	301 224 9712	MT-GLAZE 22 JA 1/16W	R331	301 224 9019	MT-GLAZE 10K JA 1/16W
R1417	301 224 9712	MT-GLAZE 22 JA 1/16W	R332	301 263 7420	MT-GLAZE 75 JA 1/16W
R1431	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R333	301 263 7420	MT-GLAZE 75 JA 1/16W
R1432	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R334	301 263 7420	MT-GLAZE 75 JA 1/16W
R1434	301 224 9019	MT-GLAZE 10K JA 1/16W	R336	301 224 9019	MT-GLAZE 10K JA 1/16W
R1437	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R337	301 224 9019	MT-GLAZE 10K JA 1/16W
R1501	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R338	301 224 9019	MT-GLAZE 10K JA 1/16W
R1502	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R339	301 224 9019	MT-GLAZE 10K JA 1/16W
R1504	301 224 9019	MT-GLAZE 10K JA 1/16W	R3402	301 224 9019	MT-GLAZE 10K JA 1/16W
R2001	301 224 8814	MT-GLAZE 100 JA 1/16W	R3403	301 224 9019	MT-GLAZE 10K JA 1/16W
R2002	301 224 8814	MT-GLAZE 100 JA 1/16W	R3404	301 224 9019	MT-GLAZE 10K JA 1/16W
R2831	301 238 4512	MT-GLAZE 47 JA 1/3W	R3406	301 224 9019	MT-GLAZE 10K JA 1/16W
R2832	301 238 4512	MT-GLAZE 47 JA 1/3W	R3407	301 224 9019	MT-GLAZE 10K JA 1/16W
R2833	301 224 8814	MT-GLAZE 100 JA 1/16W	R341	301 224 9019	MT-GLAZE 10K JA 1/16W
R2851	301 299 4919	MT-GLAZE 470 FA 1/16W	R343	301 224 9019	MT-GLAZE 10K JA 1/16W
R2852	301 299 4919	MT-GLAZE 470 FA 1/16W	R3432	301 224 9712	MT-GLAZE 22 JA 1/16W
R2853	301 224 9316	MT-GLAZE 1K JA 1/16W	R3437	301 224 9712	MT-GLAZE 22 JA 1/16W
R2856	301 301 8218	MT-GLAZE 680 FA 1/16W	R3439	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2857	301 225 1616	MT-GLAZE 390 JA 1/16W	R3441	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2858	301 224 9316	MT-GLAZE 1K JA 1/16W	R3442	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2859	301 224 9316	MT-GLAZE 1K JA 1/16W	R3444	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2862	301 224 9019	MT-GLAZE 10K JA 1/16W	R3446	301 224 9712	MT-GLAZE 22 JA 1/16W
R2863	301 224 9019	MT-GLAZE 10K JA 1/16W	R3447	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2864	301 224 9019	MT-GLAZE 10K JA 1/16W	R3452	301 224 9316	MT-GLAZE 1K JA 1/16W
R2866	301 224 9019	MT-GLAZE 10K JA 1/16W	R3453	301 224 9316	MT-GLAZE 1K JA 1/16W
R2867	301 224 9019	MT-GLAZE 10K JA 1/16W	R3454	301 226 1516	MT-GLAZE 0.000 ZA 1/16W

Key. No.	Part No.	Description				Key. No.	Part No.	Description			
R3456	301 225 8110	MT-GLAZE	10 JA	1/16W		R4412	301 224 8814	MT-GLAZE	100 JA	1/16W	
R3457	301 225 8110	MT-GLAZE	10 JA	1/16W		R4416	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3458	301 225 8110	MT-GLAZE	10 JA	1/16W		R4417	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3459	301 225 8110	MT-GLAZE	10 JA	1/16W		R4421	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3461	301 224 9316	MT-GLAZE	1K JA	1/16W		R4422	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3462	301 224 9019	MT-GLAZE	10K JA	1/16W		R4423	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3471	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4424	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3472	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4431	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3473	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4432	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3474	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4433	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3476	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4434	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3477	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4441	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3478	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4442	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3479	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4443	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3501	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4444	301 225 1814	MT-GLAZE	47 JA	1/16W	
R3502	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4467	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3503	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4468	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3504	301 224 9019	MT-GLAZE	10K JA	1/16W		R4469	301 224 9019	MT-GLAZE	10K JA	1/16W	
R352	301 224 9019	MT-GLAZE	10K JA	1/16W		R4601	301 190 1710	MT-GLAZE	0.000 ZA	1W	
R3531	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4602	301 190 1710	MT-GLAZE	0.000 ZA	1W	
R3532	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4603	301 259 7823	MT-GLAZE	20K JA	1/16W	
R3533	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4604	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3534	301 224 9019	MT-GLAZE	10K JA	1/16W		R4605	301 224 9019	MT-GLAZE	10K JA	1/16W	
R354	301 224 9316	MT-GLAZE	1K JA	1/16W		R4611	301 259 7823	MT-GLAZE	20K JA	1/16W	
R356	301 224 9019	MT-GLAZE	10K JA	1/16W		R4612	301 225 0718	MT-GLAZE	56K JA	1/16W	
R3561	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4613	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3562	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4614	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3563	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4616	301 224 9019	MT-GLAZE	10K JA	1/16W	
R3564	301 224 9019	MT-GLAZE	10K JA	1/16W		R4617	301 224 9019	MT-GLAZE	10K JA	1/16W	
R357	301 225 1210	MT-GLAZE	4.7K JA	1/16W		R4618	301 224 9019	MT-GLAZE	10K JA	1/16W	
R368	301 225 8110	MT-GLAZE	10 JA	1/16W		R4619	301 224 9019	MT-GLAZE	10K JA	1/16W	
R369	301 225 8110	MT-GLAZE	10 JA	1/16W		R4621	301 224 9019	MT-GLAZE	10K JA	1/16W	
R371	301 225 1814	MT-GLAZE	47 JA	1/16W		R4622	301 225 0718	MT-GLAZE	56K JA	1/16W	
R3801	301 225 0213	MT-GLAZE	3.3K JA	1/16W		R4623	401 344 1914	MT-GLAZE	10K DA	1/16W	
R388	301 224 9019	MT-GLAZE	10K JA	1/16W		R4624	401 302 1027	MT-GLAZE	12K DA	1/16W	
R389	301 224 9019	MT-GLAZE	10K JA	1/16W		R4625	401 345 5812	MT-GLAZE	4.7K DA	1/16W	
R396	301 225 1210	MT-GLAZE	4.7K JA	1/16W		R4801	301 225 1814	MT-GLAZE	47 JA	1/16W	
R397	301 224 9019	MT-GLAZE	10K JA	1/16W		R4802	301 225 8110	MT-GLAZE	10 JA	1/16W	
R398	301 224 9019	MT-GLAZE	10K JA	1/16W		R4803	301 225 8110	MT-GLAZE	10 JA	1/16W	
R399	301 224 9019	MT-GLAZE	10K JA	1/16W		R4806	301 224 8814	MT-GLAZE	100 JA	1/16W	
R4001	301 294 2712	MT-GLAZE	150 FA	1/16W		R4807	301 224 8814	MT-GLAZE	100 JA	1/16W	
R4002	301 294 2712	MT-GLAZE	150 FA	1/16W		R4808	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	
R4003	301 225 1418	MT-GLAZE	47K JA	1/16W		R4809	301 301 8119	MT-GLAZE	3.9K FA	1/16W	
R4004	301 225 0718	MT-GLAZE	56K JA	1/16W		R4811	301 224 8814	MT-GLAZE	100 JA	1/16W	
R4006	301 224 9316	MT-GLAZE	1K JA	1/16W		R4812	301 224 9316	MT-GLAZE	1K JA	1/16W	
R401	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4813	301 224 9316	MT-GLAZE	1K JA	1/16W	
R4011	301 225 8110	MT-GLAZE	10 JA	1/16W		R4814	301 224 9316	MT-GLAZE	1K JA	1/16W	
R402	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4816	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	
R4021	301 294 2712	MT-GLAZE	150 FA	1/16W		R4821	301 224 9019	MT-GLAZE	10K JA	1/16W	
R4022	301 294 2712	MT-GLAZE	150 FA	1/16W		R4822	301 162 4015	MT-GLAZE	560 JA	1/10W	
R4023	301 225 1418	MT-GLAZE	47K JA	1/16W		R4823	301 162 4015	MT-GLAZE	560 JA	1/10W	
R4024	301 225 0718	MT-GLAZE	56K JA	1/16W		R4833	301 224 9019	MT-GLAZE	10K JA	1/16W	
R4026	301 224 9316	MT-GLAZE	1K JA	1/16W		R4834	301 226 1516	MT-GLAZE	0.000 ZA	1/16W	
R403	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4851	301 225 3818	MT-GLAZE	1.5K JA	1/16W	
R4031	301 225 8110	MT-GLAZE	10 JA	1/16W		R4853	401 345 6017	MT-GLAZE	220 DA	1/16W	
R404	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R4854	401 345 6017	MT-GLAZE	220 DA	1/16W	
R4041	301 294 2712	MT-GLAZE	150 FA	1/16W		R5601	401 345 5812	MT-GLAZE	4.7K DA	1/16W	
R4042	301 294 2712	MT-GLAZE	150 FA	1/16W		R5602	401 302 1027	MT-GLAZE	12K DA	1/16W	
R4043	301 225 1418	MT-GLAZE	47K JA	1/16W		R5603	401 344 1914	MT-GLAZE	10K DA	1/16W	
R4044	301 225 0718	MT-GLAZE	56K JA	1/16W		R5613	301 304 3616	MT-GLAZE	1K DA	1/16W	
R4046	301 224 9316	MT-GLAZE	1K JA	1/16W		R5614	301 225 1616	MT-GLAZE	390 JA	1/16W	
R4051	301 225 8110	MT-GLAZE	10 JA	1/16W		R5616	301 304 3616	MT-GLAZE	1K DA	1/16W	
R406	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R5621	301 224 8913	MT-GLAZE	100K JA	1/16W	
R407	301 225 1814	MT-GLAZE	47 JA	1/16W		R5622	301 298 5818	MT-GLAZE	9.1K FA	1/16W	
R409	301 226 1516	MT-GLAZE	0.000 ZA	1/16W		R5623	301 299 4919	MT-GLAZE	470 FA	1/16W	
R411	301 224 8913	MT-GLAZE	100K JA	1/16W		R5624	401 344 1914	MT-GLAZE	10K DA	1/16W	
R4401	301 224 9019	MT-GLAZE	10K JA	1/16W		R5626	301 299 4810	MT-GLAZE	2.7K FA	1/16W	
R4402	301 224 9019	MT-GLAZE	10K JA	1/16W		R5631	301 224 9019	MT-GLAZE	10K JA	1/16W	
R4403	301 224 9019	MT-GLAZE	10K JA	1/16W		R5632	301 224 9019	MT-GLAZE	10K JA	1/16W	
R4406	301 224 9019	MT-GLAZE	10K JA	1/16W		R5641	401 345 5812	MT-GLAZE	4.7K DA	1/16W	
R4407	301 224 9019	MT-GLAZE	10K JA	1/16W		R5642	401 302 1027	MT-GLAZE	12K DA	1/16W	
R4408	301 224 9019	MT-GLAZE	10K JA	1/16W		R5643	401 344 1914	MT-GLAZE	10K DA	1/16W	
R4411	301 224 8814	MT-GLAZE	100 JA	1/16W		R5651	401 345 5812	MT-GLAZE	4.7K DA	1/16W	

Key. No.	Part No.	Description	Key. No.	Part No.	Description
R5652	401 345 6017	MT-GLAZE 220 DA 1/16W	R7602	301 226 1516	MT-GLAZE 0.000 ZA1/16W
R5653	401 344 1914	MT-GLAZE 10K DA 1/16W	R7603	301 304 3616	MT-GLAZE 1K DA 1/16W
R5661	301 224 8913	MT-GLAZE 100K JA 1/16W	R7604	301 304 3616	MT-GLAZE 1K DA 1/16W
R5662	301 287 2227	MT-GLAZE 22K FA 1/16W	R7606	301 304 3616	MT-GLAZE 1K DA 1/16W
R5663	301 301 8119	MT-GLAZE 3.9K FA 1/16W	R7612	301 226 1516	MT-GLAZE 0.000 ZA1/16W
R5664	401 344 1914	MT-GLAZE 10K DA 1/16W	R7613	301 304 3616	MT-GLAZE 1K DA 1/16W
R5666	301 336 8818	MT-GLAZE 6.8K FA 1/16W	R7614	301 301 8010	MT-GLAZE 1.5K F A 1/16W
R5691	301 224 9019	MT-GLAZE 10K JA 1/16W	R7616	301 224 8814	MT-GLAZE 100 JA 1/16W
R5692	301 224 9019	MT-GLAZE 10K JA 1/16W	R7632	301 226 1516	MT-GLAZE 0.000 ZA1/16W
R5694	301 224 9019	MT-GLAZE 10K JA 1/16W	R7633	401 345 5812	MT-GLAZE 4.7K DA 1/16W
R5701	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7634	301 294 2712	MT-GLAZE 150 FA 1/16W
R5702	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7636	401 345 6215	MT-GLAZE 2K DA 1/16W
R5703	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7642	301 226 1516	MT-GLAZE 0.000 ZA1/16W
R5704	301 224 8814	MT-GLAZE 100 JA 1/16W	R7643	401 345 5911	MT-GLAZE 3K DA 1/16W
R5706	301 226 1516	MT-GLAZE 0.000 ZA1/16W	R7644	401 345 6611	MT-GLAZE 560 DA 1/16W
R5707	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7646	301 304 3616	MT-GLAZE 1K DA 1/16W
R5708	301 226 1516	MT-GLAZE 0.000 ZA1/16W	R7651	401 345 6017	MT-GLAZE 220 DA 1/16W
R5709	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7652	401 344 1914	MT-GLAZE 10K DA 1/16W
R5711	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7653	401 344 1914	MT-GLAZE 10K DA 1/16W
R5712	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7661	401 345 5812	MT-GLAZE 4.7K DA 1/16W
R5713	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7662	401 302 1027	MT-GLAZE 12K DA 1/16W
R5714	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7663	401 344 1914	MT-GLAZE 10K DA 1/16W
R5716	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7670	401 344 1914	MT-GLAZE 10K DA 1/16W
R5717	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7671	401 344 1914	MT-GLAZE 10K DA 1/16W
R5718	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7672	301 304 3616	MT-GLAZE 1K DA 1/16W
R5719	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7673	301 304 3616	MT-GLAZE 1K DA 1/16W
R5722	301 224 9019	MT-GLAZE 10K JA 1/16W	R7674	401 302 1027	MT-GLAZE 12K DA 1/16W
R5724	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7675	301 304 3616	MT-GLAZE 1K DA 1/16W
R5726	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7676	401 344 1914	MT-GLAZE 10K DA 1/16W
R5732	301 102 7410	MT-GLAZE 10 JA 1W	R7677	401 344 1914	MT-GLAZE 10K DA 1/16W
R5733	301 102 7410	MT-GLAZE 10 JA 1W	R7678	401 344 1914	MT-GLAZE 10K DA 1/16W
R5761	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7679	301 287 2227	MT-GLAZE 22K FA 1/16W
R5762	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7680	301 224 9019	MT-GLAZE 10K JA 1/16W
R5763	301 224 9019	MT-GLAZE 10K JA 1/16W	R7681	301 224 9019	MT-GLAZE 10K JA 1/16W
R5764	301 224 9019	MT-GLAZE 10K JA 1/16W	R7682	301 224 9019	MT-GLAZE 10K JA 1/16W
R5771	301 309 2416	MT-GLAZE 13K DA 1/16W	R7683	301 287 2227	MT-GLAZE 22K FA 1/16W
R5772	401 344 9415	MT-GLAZE 18K DA 1/16W	R7684	301 261 1113	MT-GLAZE 24K JA 1/16W
R5773	401 344 1914	MT-GLAZE 10K DA 1/16W	R7687	301 225 1418	MT-GLAZE 47K JA 1/16W
R5781	401 345 6215	MT-GLAZE 2K DA 1/16W	R7688	301 304 3616	MT-GLAZE 1K DA 1/16W
R5782	301 338 0810	MT-GLAZE 750 DA 1/16W	R7691	301 224 9019	MT-GLAZE 10K JA 1/16W
R5783	301 315 8617	MT-GLAZE 3.3K DA 1/16W	R7692	301 224 9019	MT-GLAZE 10K JA 1/16W
R5791	301 337 8817	MT-GLAZE 4.3K DA 1/16W	R7693	301 287 2227	MT-GLAZE 22K FA 1/16W
R5792	401 351 5318	MT-GLAZE 200K DA 1/16W	R7694	301 261 1113	MT-GLAZE 24K JA 1/16W
R5793	401 351 5318	MT-GLAZE 200K DA 1/16W	R7696	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5794	301 314 0711	MT-GLAZE 120K DA 1/16W	R7697	301 224 9019	MT-GLAZE 10K JA 1/16W
R5796	301 284 3514	MT-GLAZE 360 JA 1/16W	R7801	301 298 5818	MT-GLAZE 9.1K FA 1/16W
R5797	301 284 3514	MT-GLAZE 360 JA 1/16W	R7803	301 315 8617	MT-GLAZE 3.3K DA 1/16W
R6551	301 276 4710	MT-GLAZE 0.000 ZA1/3W	R7804	401 344 1914	MT-GLAZE 10K DA 1/16W
R6552	301 224 9316	MT-GLAZE 1K JA 1/16W	R7806	301 224 8913	MT-GLAZE 100K JA 1/16W
R6553	301 224 9316	MT-GLAZE 1K JA 1/16W	R7807	301 224 9019	MT-GLAZE 10K JA 1/16W
R6554	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7808	301 224 9019	MT-GLAZE 10K JA 1/16W
R6556	301 224 9316	MT-GLAZE 1K JA 1/16W	R7809	401 344 1914	MT-GLAZE 10K DA 1/16W
R6557	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7811	301 315 8617	MT-GLAZE 3.3K DA 1/16W
R6559	301 225 8110	MT-GLAZE 10 JA 1/16W	R7812	301 224 8913	MT-GLAZE 100K JA 1/16W
R6628	301 276 0415	MT-GLAZE 10M JA 1/16W	R7813	301 224 8913	MT-GLAZE 100K JA 1/16W
R6681	301 224 8913	MT-GLAZE 100K JA 1/16W	R7814	301 298 5818	MT-GLAZE 9.1K FA 1/16W
R6682	301 299 4919	MT-GLAZE 470 FA 1/16W	R7816	301 224 8913	MT-GLAZE 100K JA 1/16W
R6683	301 315 8617	MT-GLAZE 3.3K DA 1/16W	R7817	301 224 9019	MT-GLAZE 10K JA 1/16W
R6684	401 344 1914	MT-GLAZE 10K DA 1/16W	R7821	301 237 2915	MT-GLAZE 51 JA 1/16W
R6686	301 294 2811	MT-GLAZE 2.2K FA 1/16W	R7822	301 294 3511	MT-GLAZE 27K FA 1/16W
R6687	301 224 8814	MT-GLAZE 100 JA 1/16W	R7823	401 345 5911	MT-GLAZE 3K DA 1/16W
R6691	401 345 5812	MT-GLAZE 4.7K DA 1/16W	R7824	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6692	401 302 1027	MT-GLAZE 12K DA 1/16W	R7826	301 304 3616	MT-GLAZE 1K DA 1/16W
R6693	401 344 1914	MT-GLAZE 10K DA 1/16W	R7827	401 344 1914	MT-GLAZE 10K DA 1/16W
R6801	301 226 1516	MT-GLAZE 0.000 ZA1/16W	R7828	301 294 3313	MT-GLAZE 15K FA 1/16W
R6802	301 224 9316	MT-GLAZE 1K JA 1/16W	R7829	401 344 1914	MT-GLAZE 10K DA 1/16W
R6811	301 225 1814	MT-GLAZE 47 JA 1/16W	R7831	301 237 2915	MT-GLAZE 51 JA 1/16W
R6812	301 225 1814	MT-GLAZE 47 JA 1/16W	R7832	301 294 3511	MT-GLAZE 27K FA 1/16W
R6821	301 225 1814	MT-GLAZE 47 JA 1/16W	R7833	401 345 5911	MT-GLAZE 3K DA 1/16W
R6822	301 225 1814	MT-GLAZE 47 JA 1/16W	R7834	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6831	301 225 1814	MT-GLAZE 47 JA 1/16W	R7836	301 304 3616	MT-GLAZE 1K DA 1/16W
R6832	301 225 1814	MT-GLAZE 47 JA 1/16W	R7837	401 344 1914	MT-GLAZE 10K DA 1/16W
R7601	301 226 1516	MT-GLAZE 0.000 ZA1/16W	R7838	301 294 3313	MT-GLAZE 15K FA 1/16W

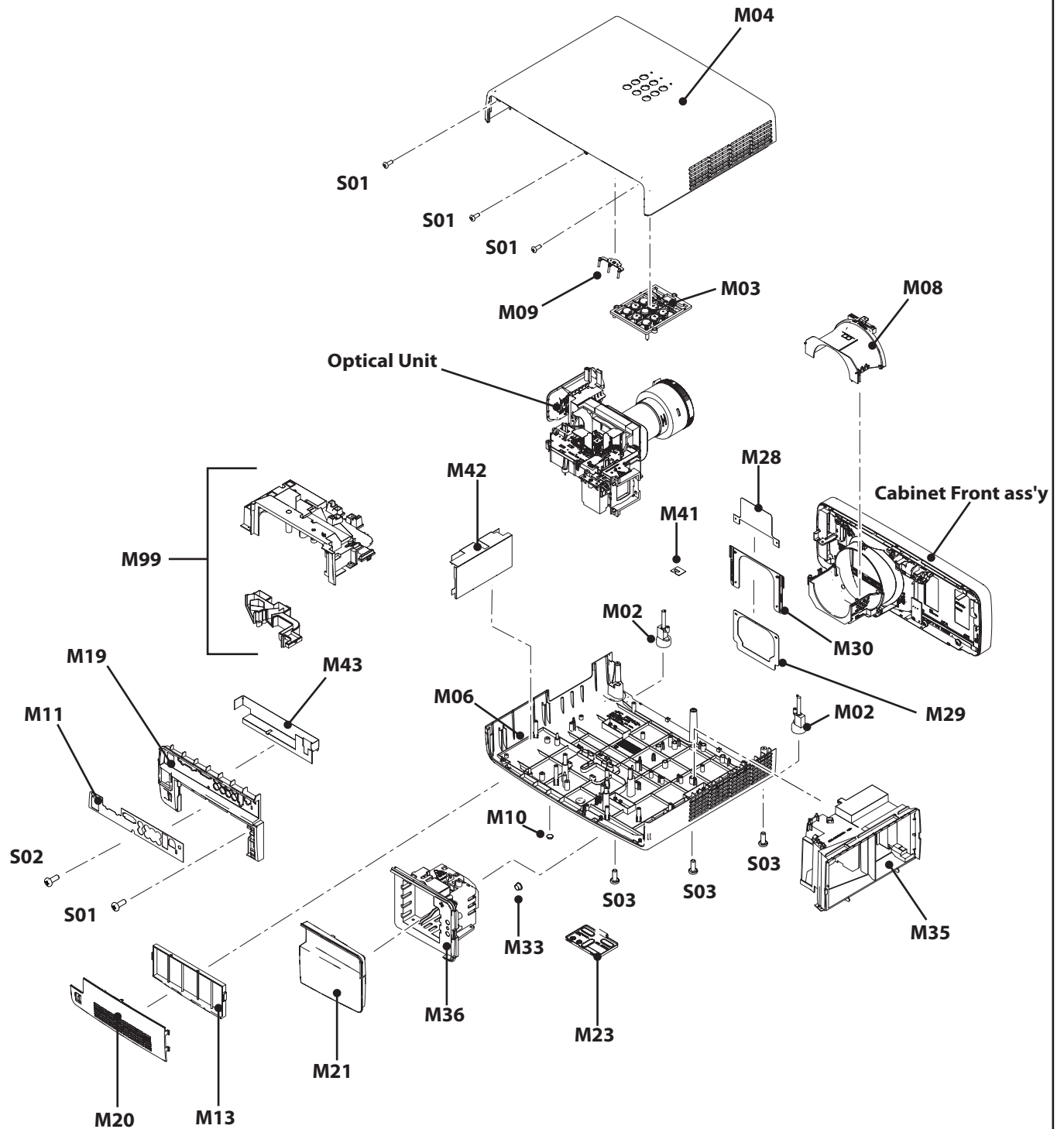
Key. No.	Part No.	Description	Key. No.	Part No.	Description
R7839	401 344 1914	MT-GLAZE 10K DA 1/16W	R812	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R7841	301 237 2915	MT-GLAZE 51 JA 1/16W	R8121	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R7842	301 294 3511	MT-GLAZE 27K FA 1/16W	R8122	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R7843	401 345 5911	MT-GLAZE 3K DA 1/16W	R8123	301 224 9019	MT-GLAZE 10K JA 1/16W
R7844	301 306 8619	MT-GLAZE 3.6K FA 1/16W	R8124	301 224 9019	MT-GLAZE 10K JA 1/16W
R7846	301 304 3616	MT-GLAZE 1K DA 1/16W	R8131	301 224 9019	MT-GLAZE 10K JA 1/16W
R7847	401 344 1914	MT-GLAZE 10K DA 1/16W	R8132	301 225 1418	MT-GLAZE 47K JA 1/16W
R7848	301 294 3313	MT-GLAZE 15K FA 1/16W	R8206	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7849	401 344 1914	MT-GLAZE 10K DA 1/16W	R8207	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7851	301 237 2915	MT-GLAZE 51 JA 1/16W	R8208	301 226 5514	MT-GLAZE 120 JA 1/16W
R7852	301 294 3511	MT-GLAZE 27K FA 1/16W	R8209	301 226 5514	MT-GLAZE 120 JA 1/16W
R7853	301 299 4810	MT-GLAZE 2.7K FA 1/16W	R8211	301 226 5514	MT-GLAZE 120 JA 1/16W
R7854	301 306 8619	MT-GLAZE 3.6K FA 1/16W	R8243	301 225 0015	MT-GLAZE 270 JA 1/16W
R7856	301 304 3616	MT-GLAZE 1K DA 1/16W	R8244	301 225 0015	MT-GLAZE 270 JA 1/16W
R7857	401 344 1914	MT-GLAZE 10K DA 1/16W	R8245	301 225 0015	MT-GLAZE 270 JA 1/16W
R7858	301 294 3313	MT-GLAZE 15K FA 1/16W	R871	301 224 9019	MT-GLAZE 10K JA 1/16W
R7859	401 344 1914	MT-GLAZE 10K DA 1/16W	R872	301 225 8110	MT-GLAZE 10 JA 1/16W
R7863	301 299 2410	MT-GLAZE 5.6K FA 1/16W	R873	301 294 3313	MT-GLAZE 15K FA 1/16W
R7864	301 294 4419	MT-GLAZE 1.8K FA 1/16W	R881	301 224 9019	MT-GLAZE 10K JA 1/16W
R7866	401 345 6215	MT-GLAZE 2K DA 1/16W	R882	301 225 8110	MT-GLAZE 10 JA 1/16W
R7871	301 224 9019	MT-GLAZE 10K JA 1/16W	R8821	401 351 6018	MT-GLAZE 220K DA 1/16W
R7872	301 224 9019	MT-GLAZE 10K JA 1/16W	R8822	301 224 9316	MT-GLAZE 1K JA 1/16W
R7873	301 224 9316	MT-GLAZE 1K JA 1/16W	R8823	301 224 9316	MT-GLAZE 1K JA 1/16W
R7874	301 224 9019	MT-GLAZE 10K JA 1/16W	R8824	301 224 9019	MT-GLAZE 10K JA 1/16W
R7876	301 224 9019	MT-GLAZE 10K JA 1/16W	R8826	301 224 9019	MT-GLAZE 10K JA 1/16W
R7877	301 224 9316	MT-GLAZE 1K JA 1/16W	R883	301 294 3313	MT-GLAZE 15K FA 1/16W
R7878	301 224 9019	MT-GLAZE 10K JA 1/16W	R8831	401 351 6018	MT-GLAZE 220K DA 1/16W
R7879	301 224 9019	MT-GLAZE 10K JA 1/16W	R8841	301 225 8110	MT-GLAZE 10 JA 1/16W
R7881	301 224 9316	MT-GLAZE 1K JA 1/16W	R8842	301 225 8110	MT-GLAZE 10 JA 1/16W
R7882	301 224 9019	MT-GLAZE 10K JA 1/16W	R8843	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R7883	301 224 9019	MT-GLAZE 10K JA 1/16W	R8844	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R7884	301 224 9316	MT-GLAZE 1K JA 1/16W	R8853	301 224 9019	MT-GLAZE 10K JA 1/16W
R7886	301 224 9019	MT-GLAZE 10K JA 1/16W	R8854	301 224 9019	MT-GLAZE 10K JA 1/16W
R7887	301 224 9019	MT-GLAZE 10K JA 1/16W	R8858	301 225 1814	MT-GLAZE 47 JA 1/16W
R7888	301 224 9316	MT-GLAZE 1K JA 1/16W	R8859	301 225 1814	MT-GLAZE 47 JA 1/16W
R7891	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R8868	301 224 9019	MT-GLAZE 10K JA 1/16W
R7893	301 224 8814	MT-GLAZE 100 JA 1/16W	R891	301 224 9019	MT-GLAZE 10K JA 1/16W
R8002	301 224 9415	MT-GLAZE 1M JA 1/16W	R892	301 224 9019	MT-GLAZE 10K JA 1/16W
R8003	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R893	301 224 9910	MT-GLAZE 22K JA 1/16W
R8004	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R894	301 224 9910	MT-GLAZE 22K JA 1/16W
R8006	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R9721	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8007	301 225 0312	MT-GLAZE 33 JA 1/16W	R9722	301 304 3616	MT-GLAZE 1K DA 1/16W
R8008	301 225 0312	MT-GLAZE 33 JA 1/16W	R9723	301 304 3616	MT-GLAZE 1K DA 1/16W
R8009	301 225 0312	MT-GLAZE 33 JA 1/16W	R9724	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R801	301 224 9019	MT-GLAZE 10K JA 1/16W	R9726	301 304 3616	MT-GLAZE 1K DA 1/16W
R8011	301 225 0312	MT-GLAZE 33 JA 1/16W	R9727	301 304 3616	MT-GLAZE 1K DA 1/16W
R8012	301 225 0312	MT-GLAZE 33 JA 1/16W	R9728	301 304 3616	MT-GLAZE 1K DA 1/16W
R8013	301 225 0312	MT-GLAZE 33 JA 1/16W	R9729	301 304 3616	MT-GLAZE 1K DA 1/16W
R8014	301 225 0312	MT-GLAZE 33 JA 1/16W	R9731	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8016	301 225 0312	MT-GLAZE 33 JA 1/16W	R9751	301 304 3616	MT-GLAZE 1K DA 1/16W
R8017	301 225 0312	MT-GLAZE 33 JA 1/16W	R9752	301 304 3616	MT-GLAZE 1K DA 1/16W
R8018	301 225 0312	MT-GLAZE 33 JA 1/16W	R9753	301 304 3616	MT-GLAZE 1K DA 1/16W
R8019	301 225 0312	MT-GLAZE 33 JA 1/16W	R9754	301 304 3616	MT-GLAZE 1K DA 1/16W
R8021	301 225 0312	MT-GLAZE 33 JA 1/16W	R9756	301 304 3616	MT-GLAZE 1K DA 1/16W
R8022	301 225 8110	MT-GLAZE 10 JA 1/16W	R9757	301 304 3616	MT-GLAZE 1K DA 1/16W
R8023	301 225 8110	MT-GLAZE 10 JA 1/16W	R9758	301 304 3616	MT-GLAZE 1K DA 1/16W
R8024	301 225 8110	MT-GLAZE 10 JA 1/16W	R9759	301 304 3616	MT-GLAZE 1K DA 1/16W
R8026	301 225 8110	MT-GLAZE 10 JA 1/16W	R9761	301 304 3616	MT-GLAZE 1K DA 1/16W
R8027	301 225 8110	MT-GLAZE 10 JA 1/16W	R9762	301 304 3616	MT-GLAZE 1K DA 1/16W
R8028	301 225 8110	MT-GLAZE 10 JA 1/16W	R9763	301 304 3616	MT-GLAZE 1K DA 1/16W
R804	301 224 9019	MT-GLAZE 10K JA 1/16W	R9764	301 304 3616	MT-GLAZE 1K DA 1/16W
R806	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R9767	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R807	301 224 9019	MT-GLAZE 10K JA 1/16W	R9768	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R808	301 224 9019	MT-GLAZE 10K JA 1/16W	R9769	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R8081	401 345 5812	MT-GLAZE 4.7K DA 1/16W	R9781	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8082	401 302 1027	MT-GLAZE 12K DA 1/16W	R9782	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8083	401 344 1914	MT-GLAZE 10K DA 1/16W	R9783	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R809	301 294 4419	MT-GLAZE 1.8K FA 1/16W	R9784	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8092	401 345 5614	MT-GLAZE 330 DA 1/16W	R9786	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8093	401 345 5614	MT-GLAZE 330 DA 1/16W	R9787	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8094	301 304 3616	MT-GLAZE 1K DA 1/16W	RB301	945 037 0671	R-NETWORK 47X4 0.063W
R8101	301 224 9019	MT-GLAZE 10K JA 1/16W		945 018 8931	R-NETWORK 47X4 1/16W
R8102	301 225 1418	MT-GLAZE 47K JA 1/16W	RB302	945 037 0671	R-NETWORK 47X4 0.063W

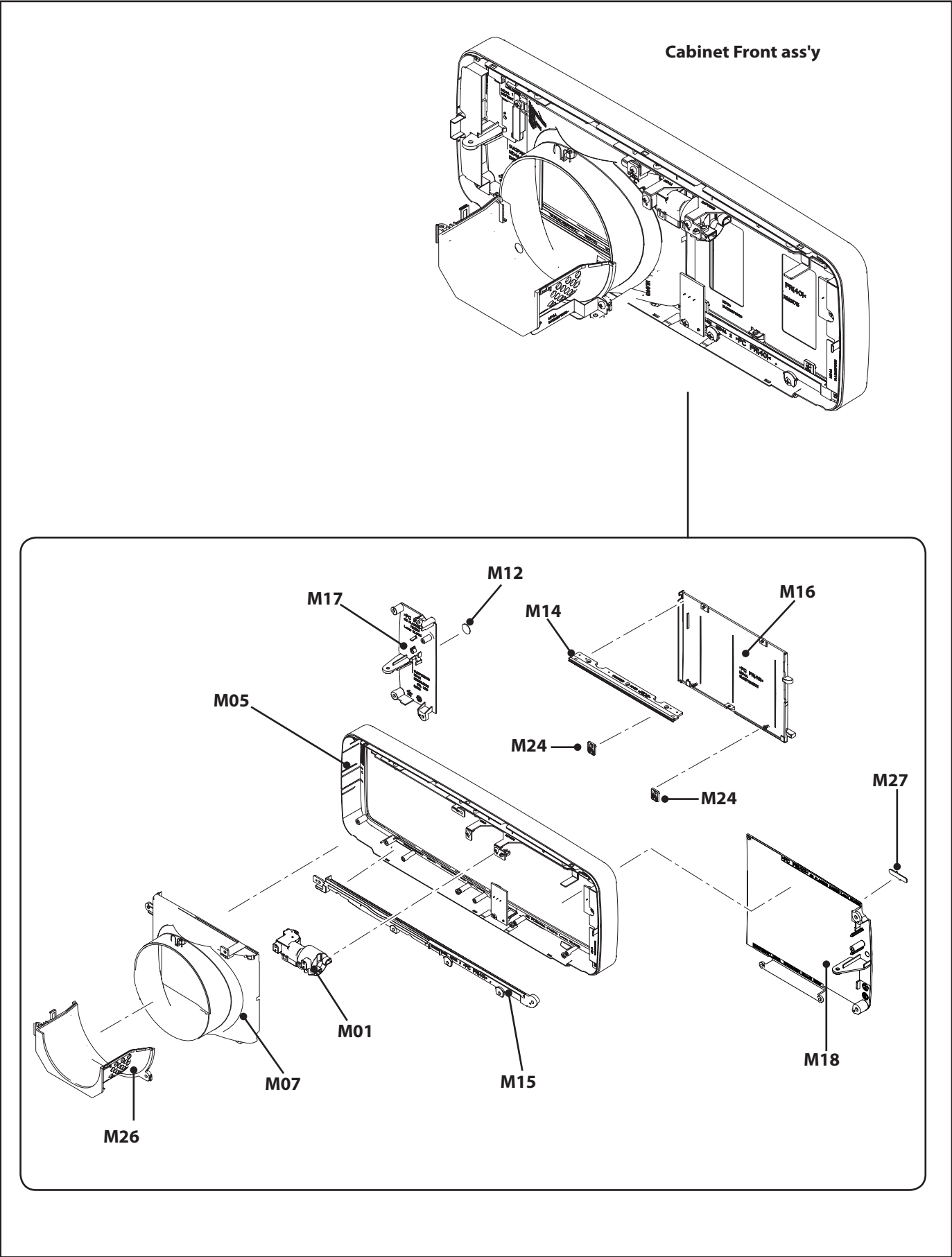
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Key. No. Part No. Description			Key. No. Part No. Description		
RB8006	945 049 0690	R-NETWORK 33X4 1/16W	D2856	307 163 0414	DIODE 1SS352- (TPH3)
	645 049 0675	R-NETWORK 33X4 1/32W	D2857	307 163 0414	DIODE 1SS352- (TPH3)
	945 049 0690	R-NETWORK 33X4 1/16W	D2868	407 264 6312	LED SMLE12Y8W T86
	RB8007	645 049 0675	R-NETWORK 33X4 1/32W	D2869	407 264 6510
945 049 0690		R-NETWORK 33X4 1/16W	D2871	307 222 4810	LED SML-521MUW T86
COIL			D4603	307 223 0712	ZENER DIODE 02DZ20Y (TPH3)
L1011	945 070 3660	INDUCTOR, 90 OHM	D4608	307 223 0712	ZENER DIODE 02DZ20Y (TPH3)
L1012	945 070 3660	INDUCTOR, 90 OHM	D5621	307 254 2914	ZENER DIODE 02DZ6.8Y (TPH3)
L1013	945 070 3660	INDUCTOR, 90 OHM	D5661	307 254 2914	ZENER DIODE 02DZ6.8Y (TPH3)
L1014	945 070 3660	INDUCTOR, 90 OHM	D5686	307 163 0414	DIODE 1SS352- (TPH3)
L1031	945 070 3660	INDUCTOR, 90 OHM	D5771	307 163 0414	DIODE 1SS352- (TPH3)
L1032	945 070 3660	INDUCTOR, 90 OHM	D5791	307 163 0414	DIODE 1SS352- (TPH3)
L1033	945 070 3660	INDUCTOR, 90 OHM	D6551	307 254 2914	ZENER DIODE 02DZ6.8Y (TPH3)
L1034	945 070 3660	INDUCTOR, 90 OHM	D6552	307 163 0414	DIODE 1SS352- (TPH3)
L1051	945 086 7577	FILTER, EMI 400MHZ	D6553	307 163 0414	DIODE 1SS352- (TPH3)
L1052	945 086 7577	FILTER, EMI 400MHZ	D6681	307 254 2914	ZENER DIODE 02DZ6.8Y (TPH3)
L1053	945 086 7577	FILTER, EMI 400MHZ	D6691	307 163 0414	DIODE 1SS352- (TPH3)
L1054	945 086 7577	FILTER, EMI 400MHZ	D6801	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L1056	945 086 7577	FILTER, EMI 400MHZ	D6811	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L1241	945 037 1623	INDUCTOR, 6.8U J	D6812	307 163 0414	DIODE 1SS352- (TPH3)
L2001	945 086 7560	FILTER, EMI 200MHZ	D6813	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L2002	945 086 7560	FILTER, EMI 200MHZ	D6821	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L3001	945 086 7577	FILTER, EMI 400MHZ	D6822	307 163 0414	DIODE 1SS352- (TPH3)
L3002	945 086 7577	FILTER, EMI 400MHZ	D6823	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L3003	945 086 7577	FILTER, EMI 400MHZ	D6831	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L3004	945 086 7577	FILTER, EMI 400MHZ	D6832	307 163 0414	DIODE 1SS352- (TPH3)
L3006	945 086 7577	FILTER, EMI 400MHZ	D6833	307 222 5916	ZENER DIODE UDZS3.6B-TE-17
L3007	945 086 7577	FILTER, EMI 400MHZ	D7601	307 163 0414	DIODE 1SS352- (TPH3)
L301	945 050 8449	IMPEDANCE, 1000 OHM P	D7621	307 163 0414	DIODE 1SS352- (TPH3)
L302	945 050 8449	IMPEDANCE, 1000 OHM P	D7631	307 163 0414	DIODE 1SS352- (TPH3)
L303	945 050 8449	IMPEDANCE, 1000 OHM P	D7651	307 163 0414	DIODE 1SS352- (TPH3)
L304	945 050 8449	IMPEDANCE, 1000 OHM P	D7661	307 163 0414	DIODE 1SS352- (TPH3)
L305	945 050 8449	IMPEDANCE, 1000 OHM P	D7671	307 254 2716	DIODE CMS16
L306	945 050 8449	IMPEDANCE, 1000 OHM P	D7681	307 163 0414	DIODE 1SS352- (TPH3)
L307	945 050 8449	IMPEDANCE, 1000 OHM P	D7682	307 163 0414	DIODE 1SS352- (TPH3)
L308	945 050 8449	IMPEDANCE, 1000 OHM P	D7691	307 163 0414	DIODE 1SS352- (TPH3)
L309	945 050 8449	IMPEDANCE, 1000 OHM P	D7821	307 254 2716	DIODE CMS16
L311	945 050 8449	IMPEDANCE, 1000 OHM P	D7831	307 254 2716	DIODE CMS16
L312	945 050 8449	IMPEDANCE, 1000 OHM P	D7841	307 254 2716	DIODE CMS16
L313	945 050 8449	IMPEDANCE, 1000 OHM P	D7851	307 254 2716	DIODE CMS16
L314	945 050 8449	IMPEDANCE, 1000 OHM P	D7871	307 163 0414	DIODE 1SS352- (TPH3)
L4001	945 086 7461	FILTER, EMI 100MHZ	D7872	307 163 0414	DIODE 1SS352- (TPH3)
L401	945 002 5045	INDUCTOR, 0.10U M	D7873	307 163 0414	DIODE 1SS352- (TPH3)
L4021	945 086 7461	FILTER, EMI 100MHZ	D7874	307 163 0414	DIODE 1SS352- (TPH3)
L4041	945 086 7461	FILTER, EMI 100MHZ	D7876	307 163 0414	DIODE 1SS352- (TPH3)
L4608	945 086 6600	IMPEDANCE, 220 OHM P	D7877	307 163 0414	DIODE 1SS352- (TPH3)
L4609	945 086 6662	IMPEDANCE, 600 OHM P	D7878	307 163 0414	DIODE 1SS352- (TPH3)
L4611	945 086 6662	IMPEDANCE, 600 OHM P	D7879	307 163 0414	DIODE 1SS352- (TPH3)
L4612	945 086 6662	IMPEDANCE, 600 OHM P	D7881	307 163 0414	DIODE 1SS352- (TPH3)
L5621	945 078 6212	INDUCTOR, 15U M	D7882	307 163 0414	DIODE 1SS352- (TPH3)
L5641	945 086 6662	IMPEDANCE, 600 OHM P	D8081	307 254 2716	DIODE CMS16
L5651	945 086 6662	IMPEDANCE, 600 OHM P	D8082	307 163 0414	DIODE 1SS352- (TPH3)
L5661	945 078 6212	INDUCTOR, 15U M	D8091	307 254 2716	DIODE CMS16
L5686	945 086 6662	IMPEDANCE, 600 OHM P	D8092	307 163 0414	DIODE 1SS352- (TPH3)
L6551	945 086 6648	IMPEDANCE, 220 OHM P	D8821	307 224 6515	ZD UDZS4.7B-TE-17
L6681	945 078 6212	INDUCTOR, 15U M	D8831	307 224 6515	ZD UDZS4.7B-TE-17
L7671	945 079 1476	INDUCTOR, 33U M	D887	307 163 0414	DIODE 1SS352- (TPH3)
L7821	945 079 1476	INDUCTOR, 33U M	D888	307 163 0414	DIODE 1SS352- (TPH3)
L7831	945 079 1476	INDUCTOR, 33U M	MISCELLANEOUS		
L7841	945 079 1476	INDUCTOR, 33U M	K10A	945 077 1058	SOCKET, IF (HDMI) 19P
L7851	945 079 1476	INDUCTOR, 33U M	K10B	945 077 1058	SOCKET, IF (HDMI) 19P
L8001	945 086 5368	IMPEDANCE, 220 OHM P	K10C	645 089 7696	SOCKET, D-SUB 15P
L8002	945 086 5368	IMPEDANCE, 220 OHM P		952 001 8601	SOCKET, D-SUB 15P
L8081	945 086 6662	IMPEDANCE, 600 OHM P	K10D	945 067 6124	TERMINAL, BOARD
L8091	945 086 6600	IMPEDANCE, 220 OHM P	K10E	945 071 9029	JACK, RCA-6
DIODE			K10G	945 041 1077	SOCKET, DIN 8P
D1001	307 205 5216	DIODE RB521S-30-TE61	SC1001	945 076 3503	SURGE-ABSORBER
D1081	307 205 5216	DIODE RB521S-30-TE61	SC1004	945 076 3503	SURGE-ABSORBER
D1082	307 223 1115	ZENER DIODE 02DZ6.2Y (TPH3)	SC1021	945 076 3503	SURGE-ABSORBER
D1083	307 205 5216	DIODE RB521S-30-TE61	SC1024	945 076 3503	SURGE-ABSORBER
D1084	307 210 5416	DIODE RB551V-30-TE-17	SC1051	945 076 3503	SURGE-ABSORBER
D2853	307 163 0414	DIODE 1SS352- (TPH3)	SC1052	945 076 3503	SURGE-ABSORBER
D2854	307 163 0414	DIODE 1SS352- (TPH3)	SC1053	945 076 3503	SURGE-ABSORBER

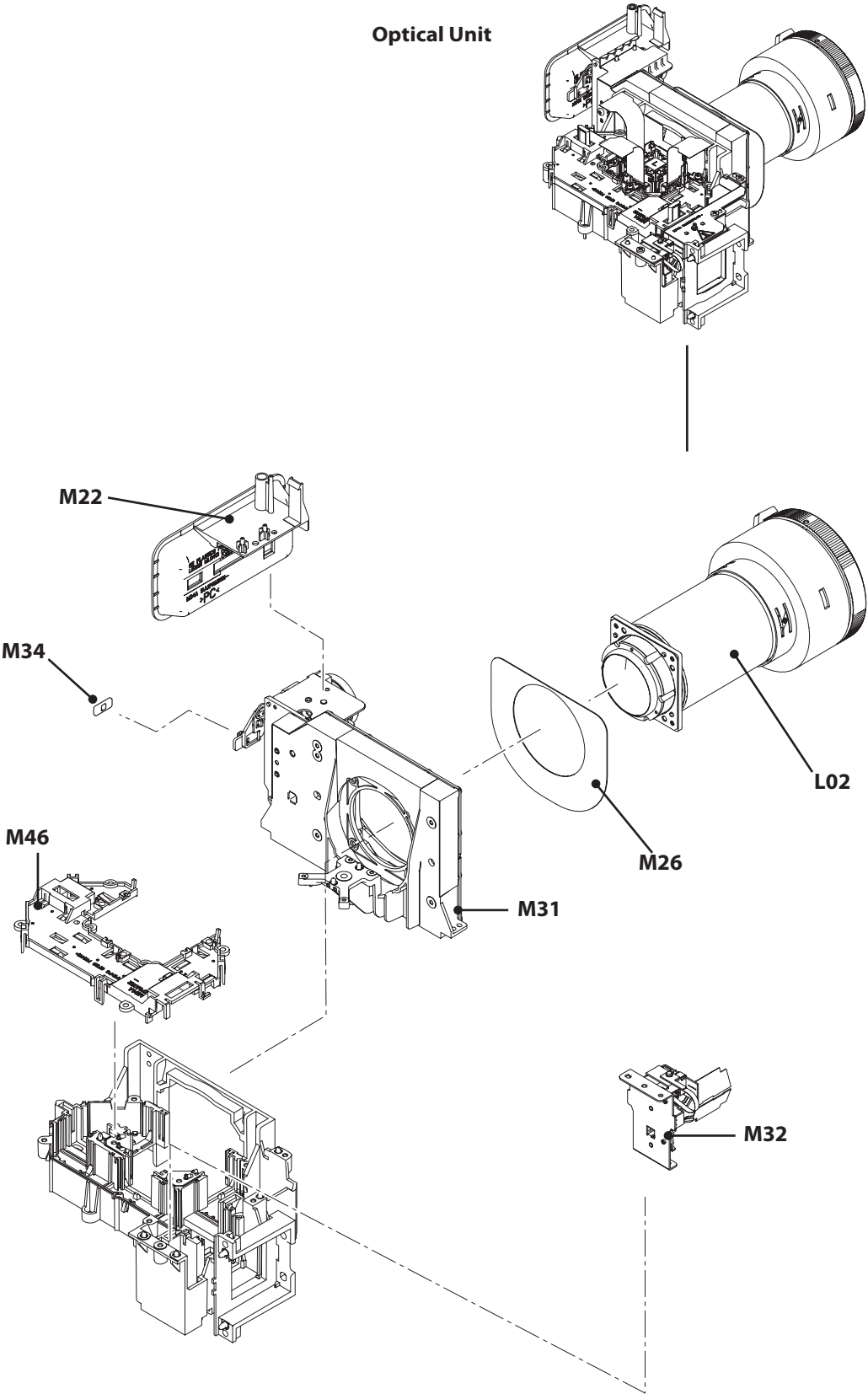
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SC1054	945 076 3503	SURGE-ABSORBER			
SC1056	945 076 3503	SURGE-ABSORBER			
SC1057	945 076 3503	SURGE-ABSORBER			
SC1058	945 076 3503	SURGE-ABSORBER			
SC1059	945 076 3503	SURGE-ABSORBER			
SC2001	945 076 3503	SURGE-ABSORBER			
SC2002	945 076 3503	SURGE-ABSORBER			
SC2851	945 076 3503	SURGE-ABSORBER			
SC2852	945 076 3503	SURGE-ABSORBER			
SC2853	945 076 3503	SURGE-ABSORBER			
SC2854	945 076 3503	SURGE-ABSORBER			
SC3001	945 076 3503	SURGE-ABSORBER			
SC3002	945 076 3503	SURGE-ABSORBER			
SC3003	945 076 3503	SURGE-ABSORBER			
SC3004	945 076 3503	SURGE-ABSORBER			
SC3006	945 076 3503	SURGE-ABSORBER			
SC3007	945 076 3503	SURGE-ABSORBER			
SC4001	945 076 3503	SURGE-ABSORBER			
SC4021	945 076 3503	SURGE-ABSORBER			
SC4041	945 076 3503	SURGE-ABSORBER			
SC8851	945 076 3503	SURGE-ABSORBER			
SC8852	945 076 3503	SURGE-ABSORBER			
SW6801	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6811	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6812	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6813	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6821	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6822	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6823	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6831	945 026 2792	SWITCH,PUSH 1P-1TX1			
SW6832	945 026 2792	SWITCH,PUSH 1P-1TX1			
X1351	945 088 7179	OSC, CRYSTAL 27.0MHZ			
X5701	645 097 4793	OSC, CERAMIC 20MHZ			
X8001	945 087 8856	OSC, CRYSTAL 28.322MHZ			
A101	610 350 7637	ASSY,PWB,R/C.MF4AE			
CAPACITOR					
C2801	303 282 5118	CERAMIC 470P K 50V			
C2802	403 455 1012	CERAMIC 1U K 10V			
	303 433 1112	CERAMIC 1U K 10V			
C2803	303 397 5713	ELECT100U M 10V			
	303 387 5617	ELECT100U M 10V			
RESISTOR					
R2801	301 224 8814	MT-GLAZE 100 JA 1/16W			
R2802	301 225 1814	MT-GLAZE 47 JA 1/16W			
COIL					
L2801	945 086 6662	IMPEDANCE,600 OHM P			
MISCELLANEOUS					
A2801	645 097 6674	UNIT,REMOCON RECEIVER			

Cabinet Parts Location

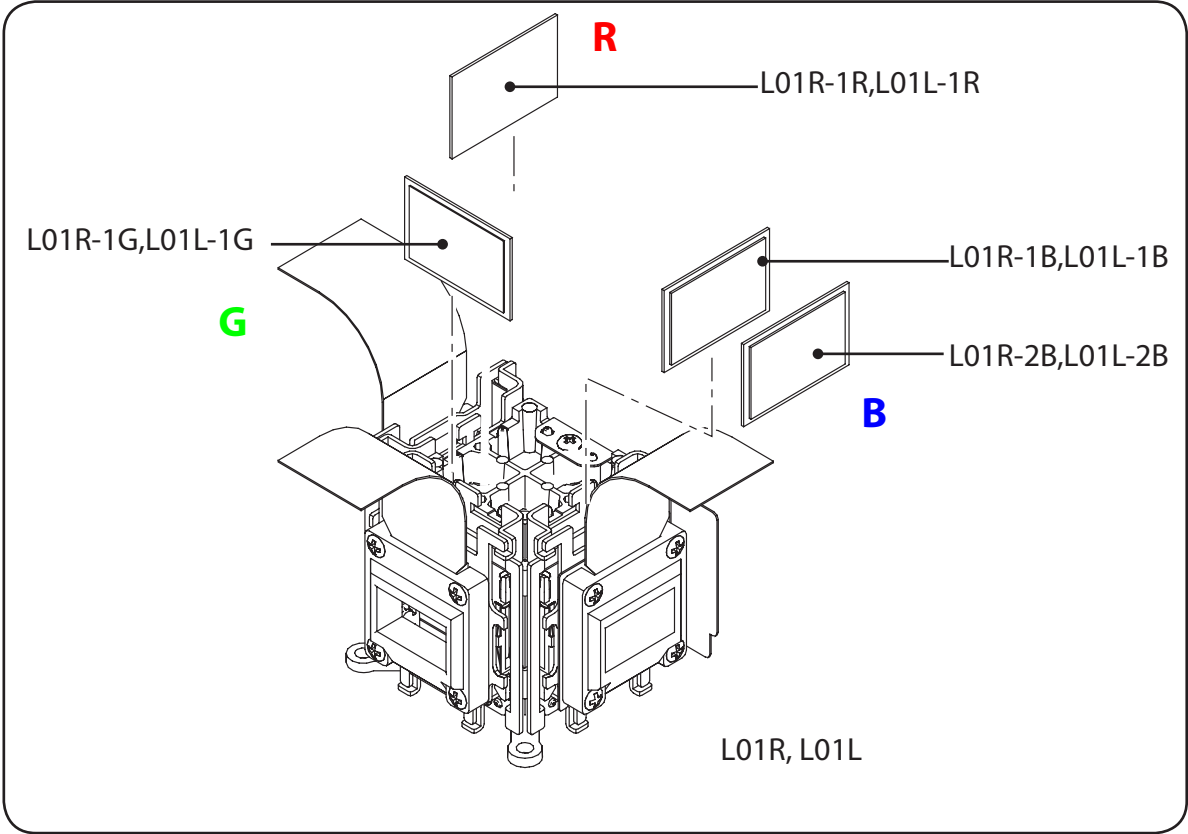
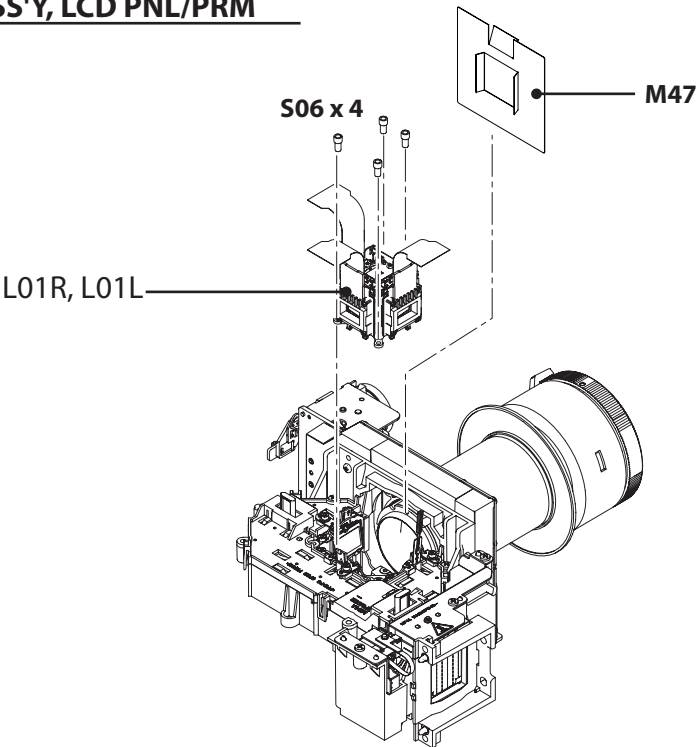


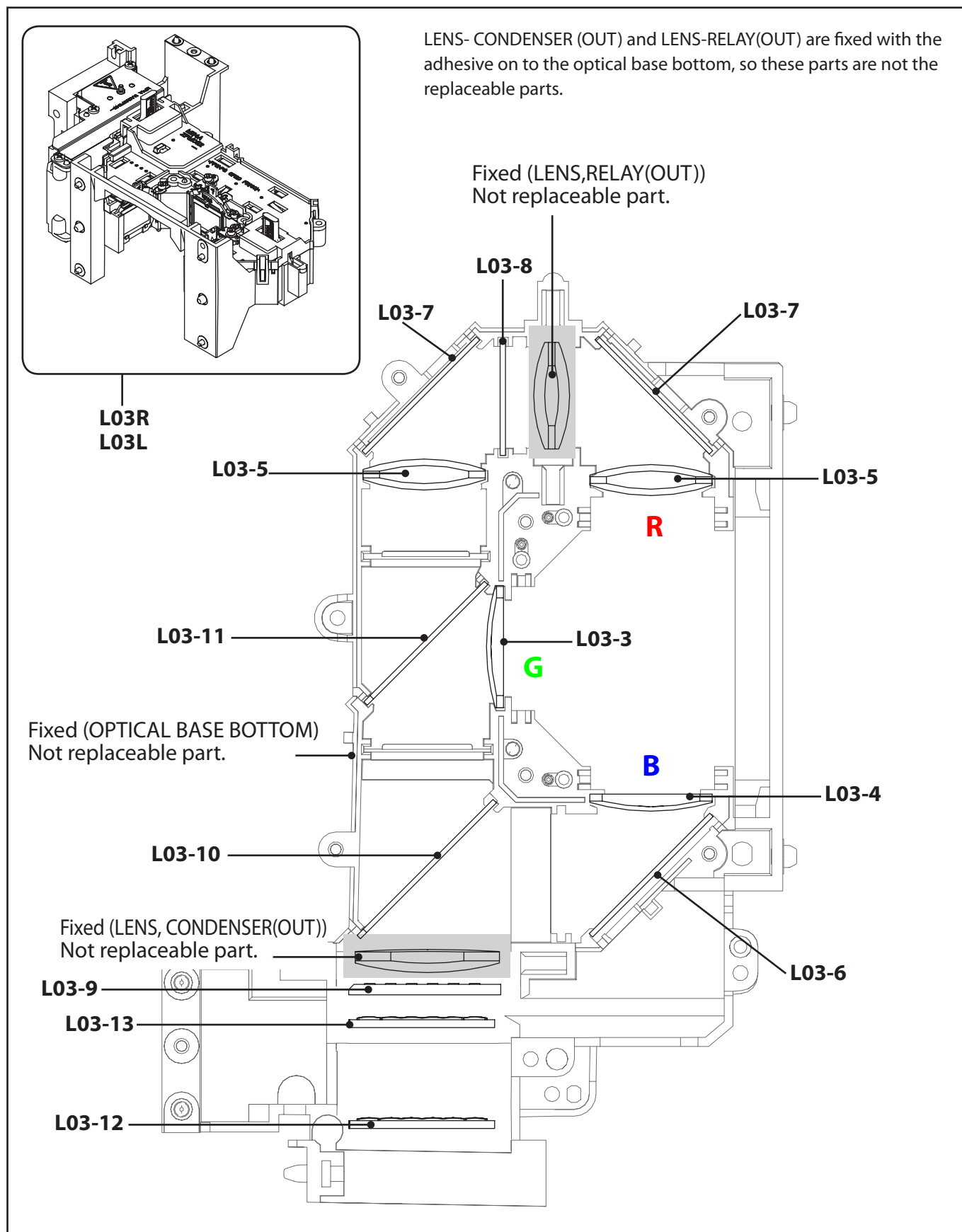


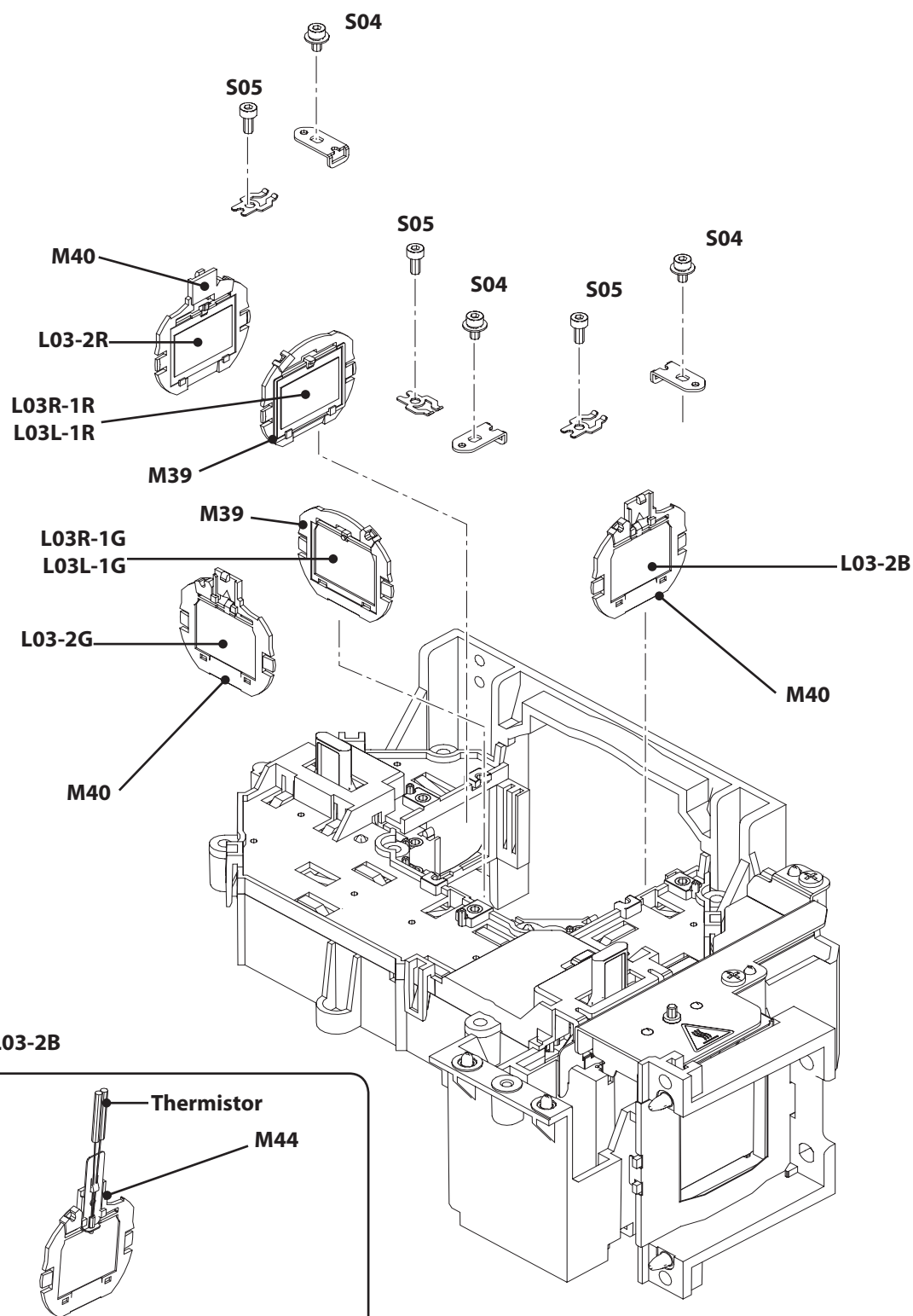
Optical Parts Location



ASS'Y, LCD PNL/PRM



COMPL, OPTICAL UNIT (Inside)

COMPL, OPTICAL UNIT (Outside)

Key No. M44 and Thermistor are not included in Key No. L03R/L

Key. No.	Part No.	Description	Key. No.	Part No.	Description
CABINET PARTS			L01R-2B	645 097 3796	OPTICAL FILTER (WV-QZ) BL
M01	610 336 5831	COMPL, MOUNTING SHUTTER -MD4A	L02	645 098 1838	LENS, PROJECTION
M02	610 336 6098	ASSY, STAND LEG-MD4A	L03L	610 343 3622	COMPL, OPTICAL L-MF4A (Including Key No. L03L-1G to L03-13)
M03	610 336 1390	BUTTON -MD4A	L03L-1G	645 097 3772	OPTICAL FILTER (WV-SPN) L
M04	610 336 0546	CABINET TOP-MD4A	L03L-1R	645 097 3789	OPTICAL FILTER (WV-SPN) R
M05	610 336 0553	CABINET FRONT-MD4A	L03-2R	645 097 3758	POLARIZED GLASS (IN/R)
M06	610 344 4291	CABINET BOTTOM A-MF4A	L03-2G	645 097 6254	POLARIZED GLASS (IN/G)
M07	610 342 1544	COVER LNS BOTTOM-ME4A	L03-2B	645 097 6278	POLARIZED GLASS (IN/B)
M08	610 342 1568	COVER LNS TOP-ME4A	L03-3	645 090 2109	LENS, CONDENSER (G)
M09	610 336 2113	DEC INLY LED-MD4A	L03-4	945 078 9220	LENS, CONDENSER (B)
M10	910 295 3085	DEC LEG-MW6A	L03-5	945 078 9237	LENS, CONDENSER (R)
M11	610 341 3853	DEC SHEET AV-MF4A	L03-6	945 078 9305	MIRROR (B)
M12	910 302 5613	DEC SHEET-M4JA	L03-7	945 078 9312	MIRROR (R)
M13	610 336 3189	FILTER BASE-MD4A	L03-8	945 078 9343	OPTICAL FILTER (R)
M14	610 336 1475	GEAR SHUTTER RACK-MD4A	L03-9	945 078 0845	PRISM (PBS)
M15	610 342 1612	MOUNTING SHATTER BOTTOM-ME4A	L03-10	645 089 9713	DICHROIC MIRROR (B)
M16	610 342 1629	PANEL SHUTTER-ME4A	L03-11	645 089 9720	DICHROIC MIRROR (G)
M17	610 344 4772	PANEL FRONT A SERVICE-ME4A	L03-12	945 078 9107	LENS, INTEGRATOR (IN)
M18	610 344 4789	PANEL FRONT B SERVICE-ME4A	L03-13	945 083 6528	LENS, INTEGRATOR (OUT) UV
M19	610 341 3839	PANEL AV-MF4A	L03R	610 343 5923	COMPL, OPTICAL R-MF4A (Including Key No. L03R-1G to L03-13)
M20	610 341 3815	PANEL FILTER-MF4A	L03R-1R	645 097 3772	OPTICAL FILTER (WV-SPN) L
M21	610 341 3846	PANEL LMP-MF4A	L03R-1G	645 097 3789	OPTICAL FILTER (WV-SPN) R
M22	610 336 2526	PANEL LNS SHIFT-MD4A	L03-2R	645 097 3758	POLARIZED GLASS (IN/R)
M23	610 338 5549	PANEL BLOWER SERVICE-MD4A	L03-2G	645 097 6254	POLARIZED GLASS (IN/G)
M24	610 336 1307	SPACER SHATTER-MD4A	L03-2B	645 097 6278	POLARIZED GLASS (IN/B)
M25	610 342 1551	COVER LNS BOTTOM A-ME4A	L03-3	645 090 2109	LENS, CONDENSER (G)
M26	610 341 9275	SPACER SHEET LNS BTM-MF4A	L03-4	945 078 9220	LENS, CONDENSER (B)
M27	945 074 6551	BADGE, SANYO*26.2X5.7L26.0	L03-5	945 078 9237	LENS, CONDENSER (R)
M28	610 341 9282	SPACER SHEET LNS TOP-MF4A	L03-6	945 078 9305	MIRROR (B)
M29	610 342 5252	SPACER SHEET LNS TOP A-MF4A	L03-7	945 078 9312	MIRROR (R)
M30	610 341 6663	MOUNTING BASE SPACER SHET-MF4A	L03-8	945 078 9343	OPTICAL FILTER (R)
M31	610 341 4607	COMPL, MOUNTING LNS-ME4A	L03-9	945 078 0845	PRISM (PBS)
M32	610 344 7759	COMPL, MOUNTING IRIS-ME4A	L03-10	645 089 9713	DICHROIC MIRROR (B)
M33	910 310 6947	CAP SE-MA7A	L03-11	645 089 9720	DICHROIC MIRROR (G)
M34	910 325 4501	COVER SLIDE-M4WA	L03-12	945 078 9107	LENS, INTEGRATOR (IN)
M35	610 336 3608	COVER DUCT EXH-MD4A	L03-13	945 083 6528	LENS, INTEGRATOR (OUT) UV
M36	610 336 3455	COVER LMP-MD4A	PACKING MATERIALS		
M39	610 341 2573	HOLDER WV IN-MF4A		610 350 9204	CARTON CASE-MF4AE
M40	610 343 8207	HOLDER POL IN-ME4A		610 336 5848	CASE ACCESSORY-MD4A
M41	610 344 2303	SPACER SHIELD BALLAST C-MD4A		610 336 5725	CUSHION LENS-MD4A
M42	610 337 0651	SPACER SHEET AC-MD4A		610 336 5671	CUSHION-MD4A
M43	610 341 2702	SPACER SHEET AV-ME4A		645 096 4015	POLY BAG-0750X0600*NC*R8P
M44	610 331 9070	STOPPER THERM POL IN-MZ7A	ACCESSORIES		
M46	610 340 9542	OPTICAL BASE TOP-ME4A	OWNER'S MANUAL		
M47	610 338 2784	SHIELD LT PRM B-MD4A		610 350 8207	SETUP INST MANUAL-MF4AE
M99	610 345 2623	COMPL, COVER DUCT PANEL-MF4A		610 350 8689	CD-ROM, OWNERS MANUAL-MF4AE
SCREWS			REMOTE CONTROL		
S01	411 031 9304	SCR BIN 3X8		645 092 8710	ASSY, REMOCON CXWY
S02	411 207 7707	SCR BIN 3X10		910 297 9870	RC-BATTERY LID-JXMTA
S03	411 185 8802	SCR S-TPG PAN 3X8	AC CORD		
S04	411 189 6507	BOLT HEX-SCT+SW+W 2.5X5	△ (US)	945 064 6363	CORD, POWER-3.0MK, US
S05	411 189 6606	BOLT HEX-SCT 2.5X6	△ (EU)	945 054 1156	CORD, POWER-3.0MK
S06	312 069 7105	SPECIAL SCREW V	△ (UK)	945 054 1149	CORD, POWER-3.138MK
OPTICAL PARTS			△ (BRA)	645 102 6996	CORD, POWER-2.5MK, BRA
L01L	610 342 3647	ASSY, LCD PNL/PSM L-MF4A (Including Key No. L01L-1R to L01L-2B and LCD Panel)	MISCELLANEOUS		
L01L-1R	645 097 3765	POLARIZED GLASS (OUT/R)		910 324 5158	COMPL, DEC BLOWER-M4WA
L01L-1G	645 097 6261	POLARIZED GLASS (OUT/G)			
L01L-1B	645 097 6285	POLARIZED GLASS (OUT/B)			
L01L-2B	645 097 3802	OPTICAL FILTER (WV-QZ) BR			
L01R	610 342 3654	ASSY, LCD PNL/PSM R-MF4A (Including Key No. L01R-1R to L01R-2B and LCD Panel)			
L01R-1R	645 097 3765	POLARIZED GLASS (OUT/R)			
L01R-1G	645 097 6261	POLARIZED GLASS (OUT/G)			
L01R-1B	645 097 6285	POLARIZED GLASS (OUT/B)			



Diagrams & Drawings

Schematic Diagrams Printed Wiring Board Drawings

Model	Chassis No.
PLV-Z800	MF4-Z80000

**These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. MF4-Z80000 model PLV-Z800.
File with the service manual No. SM5111254-00**

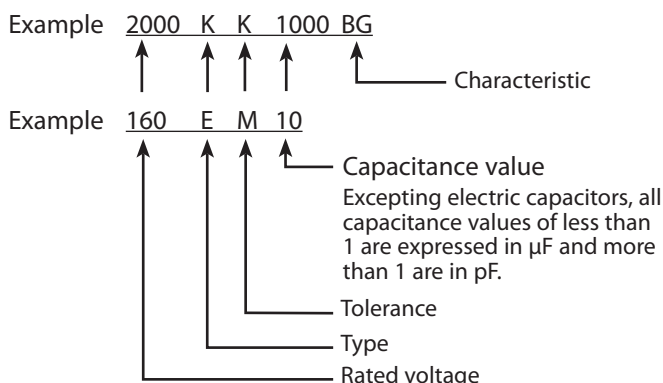
Note:

All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal (1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading



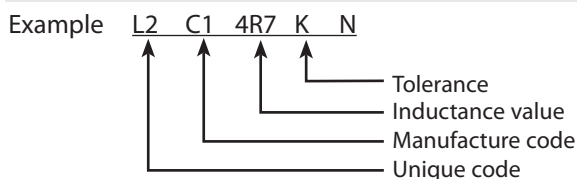
Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metallized polypropylene
H	Metallized polypropylar
B	Ceramic (semiconductor)
G	Metallized polyester
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

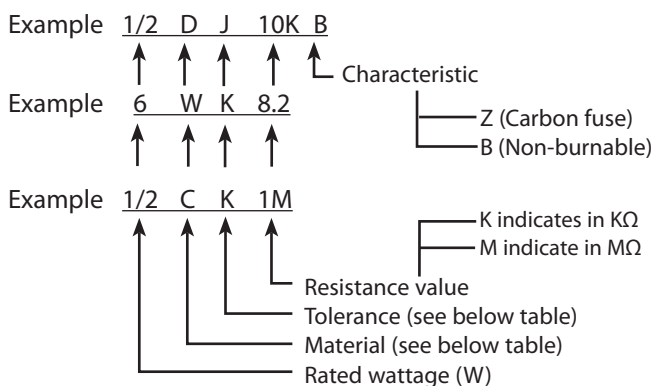
Mark	Tolerance
A	not specified
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
E	± 2.5
H	± 3
J	± 5
K	± 10
M	± 20
N	± 30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	± 0.25	G	± 2
D	± 0.5	J	± 5
S	± 0.3	K	± 10
A	± 0.2	L	± 15
		M	± 20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire winding or cement
H	Ceramic
F	Fusible

Tolerance table

Mark	Tolerance
A	± 0.05
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
J	± 5
K	± 10
M	± 20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

Diode

Mark	Type number
R	1S2076A, 1S2473, 1N4148
AA	1S2076A, 1S2473, 1S5133, 1N4148

Transistor

(1) NPN type

Mark	Type number
--	2SC536 2SC945A 2SC1815 2SC1740S
AD	NF, NG PA, QA Y, GR Q, R, S
AE	NF, NG PA, QA, RA O, Y, GR Q, R, S

(2) PNP type

Mark	Type number
--	2SA608 2SA564A 2SA1015 2SA933S
AB	NF R Y, GR R
AC	NF Q, R O, Y, GR Q, R

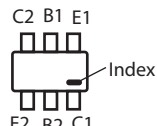
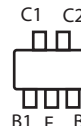
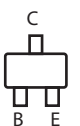
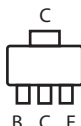
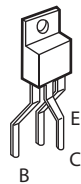
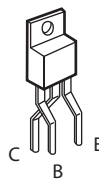
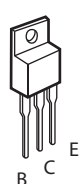
(3) Chip type

Mark	Type number
--	2SA1179N 2SA1037K 2SC2812/N 2SC2412K
AJ	M6, M7 R, S R, S
AH	L6, L7 R, S

● Transistor/FET

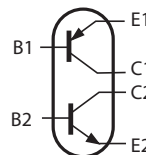
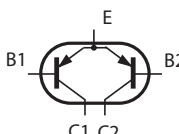
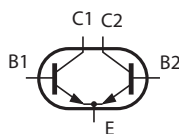
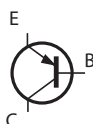
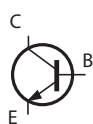


K: Cathode
A: Anode

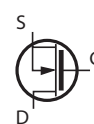
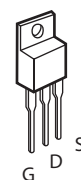


C: Collector
B: Base
E: Emitter

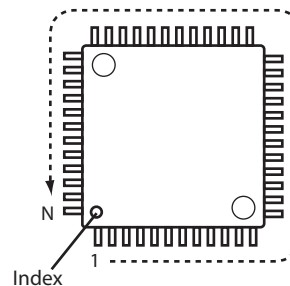
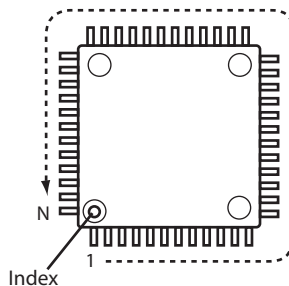
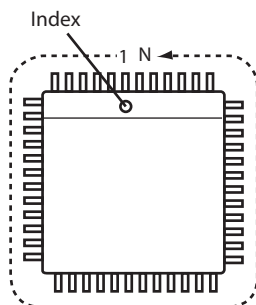
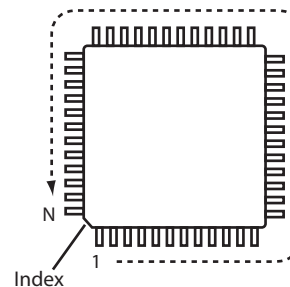
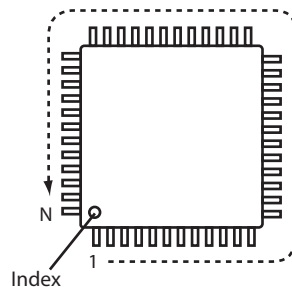
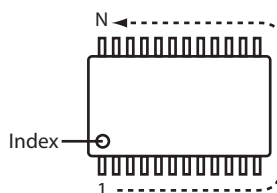
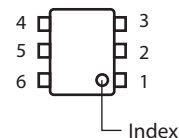
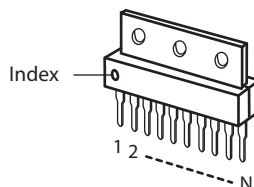
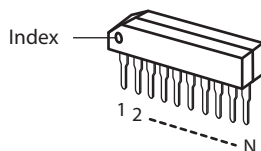
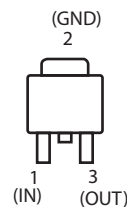
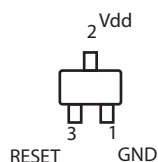
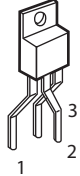
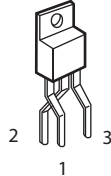
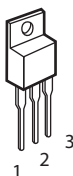
D: Drain
G: Gate
S: Source



FET



● IC



Note on Soldering

Do not use solder containing lead.

This product has been manufactured using lead-free solder in order to help preserve the environment. Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30–40 °C (86–104 °F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased. The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur. Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work. Also, soldering work must be done in a short time.

Soldering iron

Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450 °C (842 °F) It should also have as good temperature recovery characteristics as possible.

Solder

Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

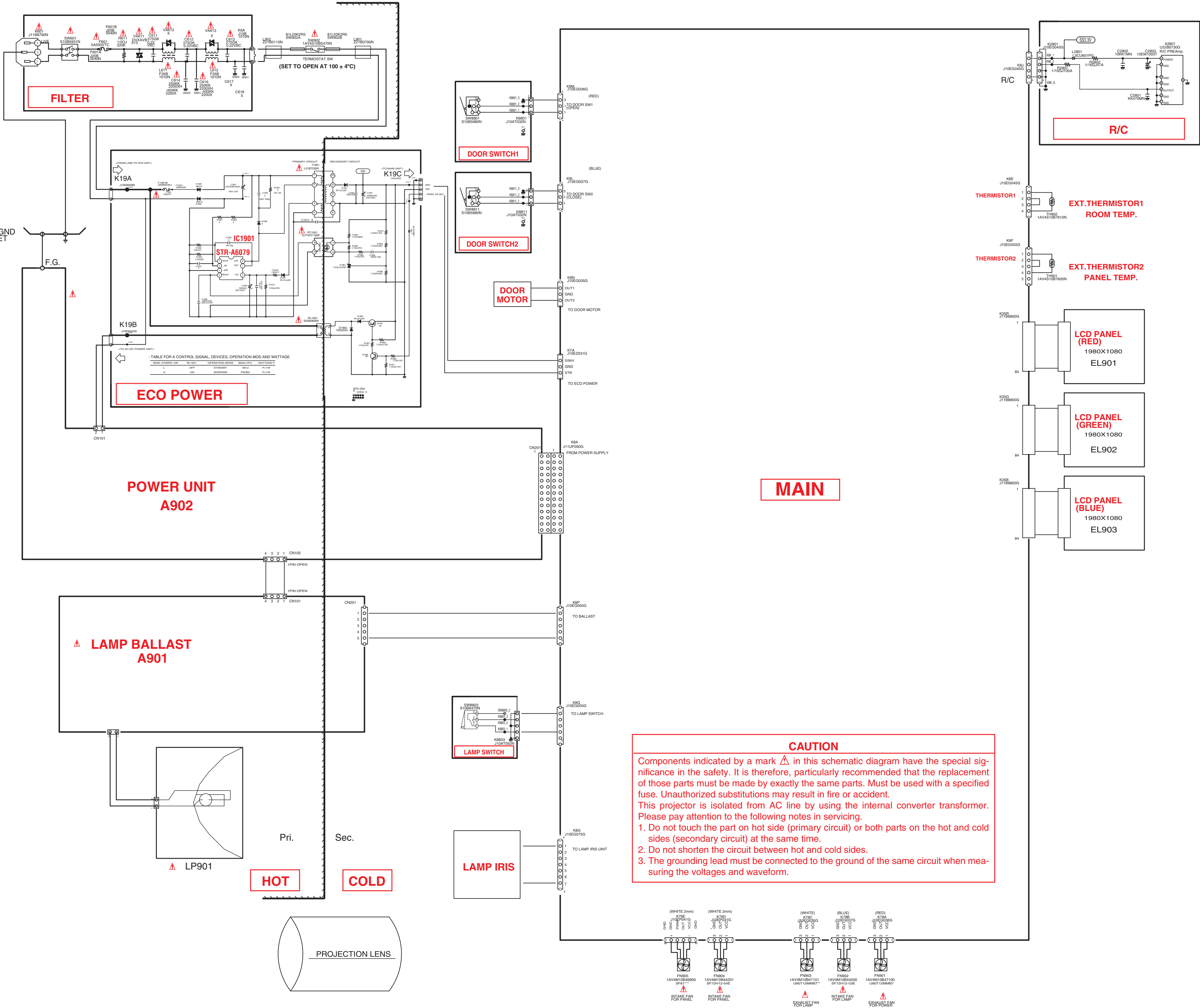
Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5 %	3.0 %	0.5 %

Note:

If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.

Schematic Diagrams

AC CORD
AC100-120V
AC100-240V



A

B

C

D

E

F

G

H

I

J

K

L

A

B

C

D

E

F

G

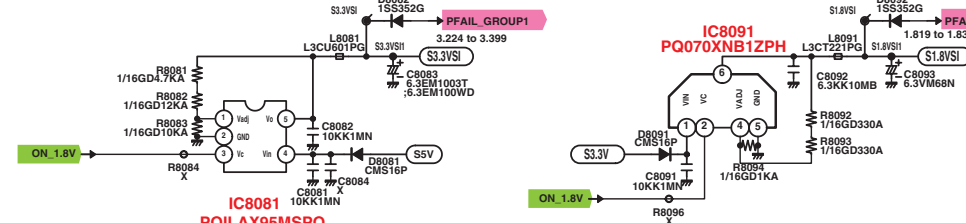
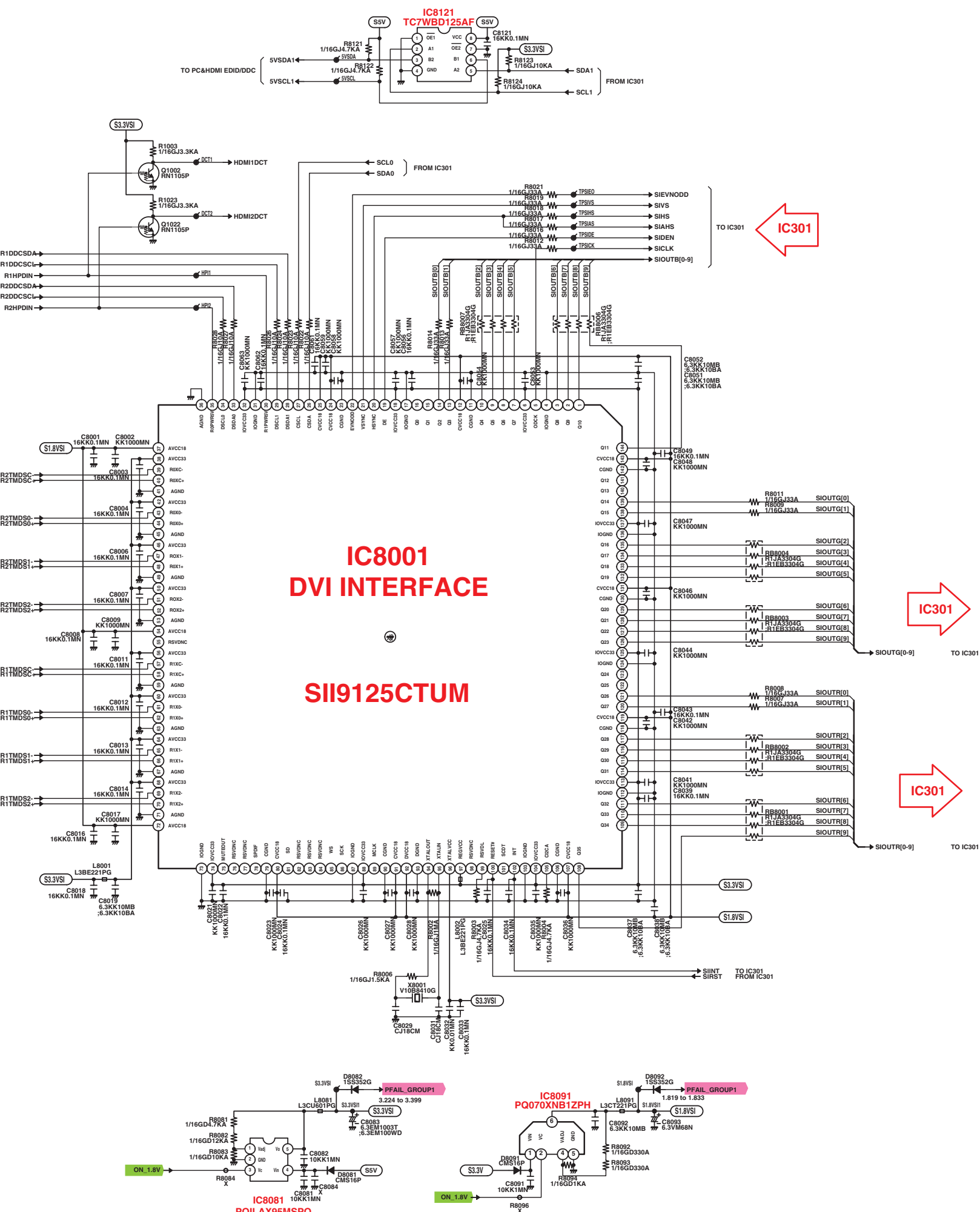
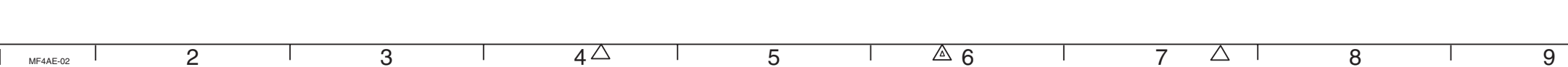
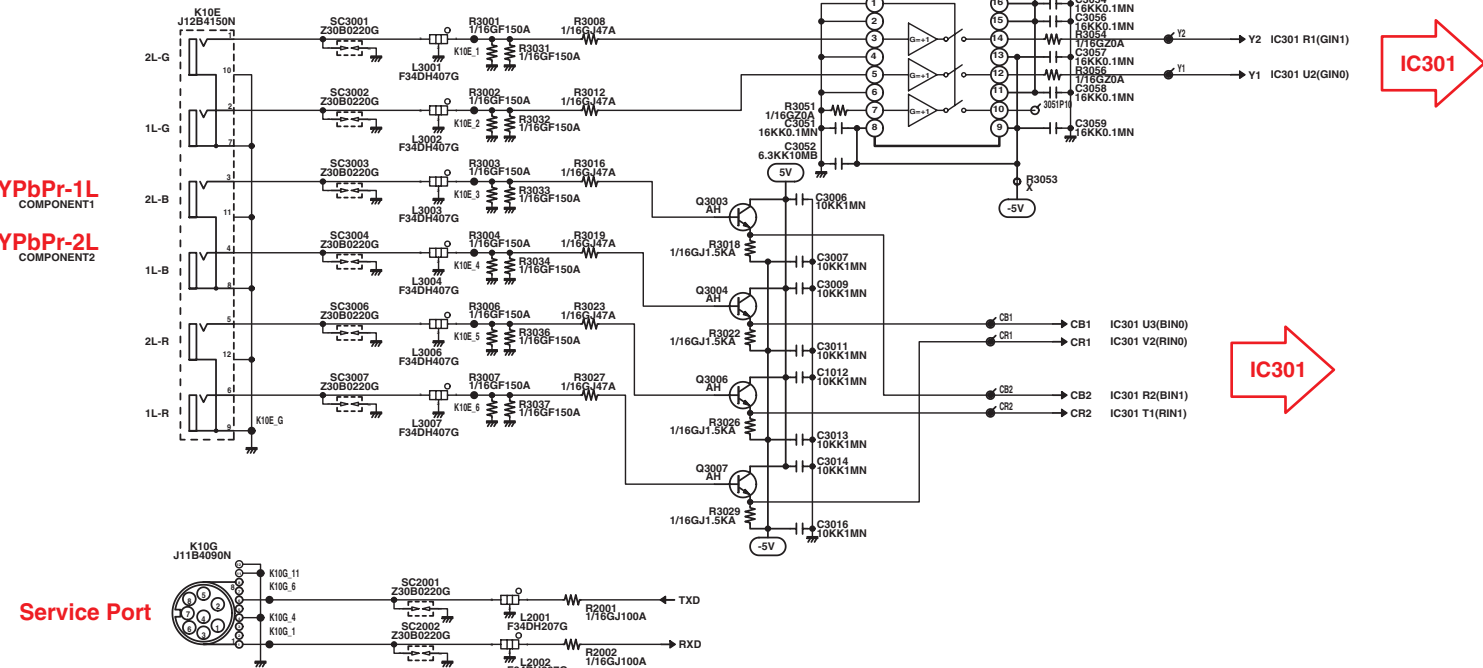
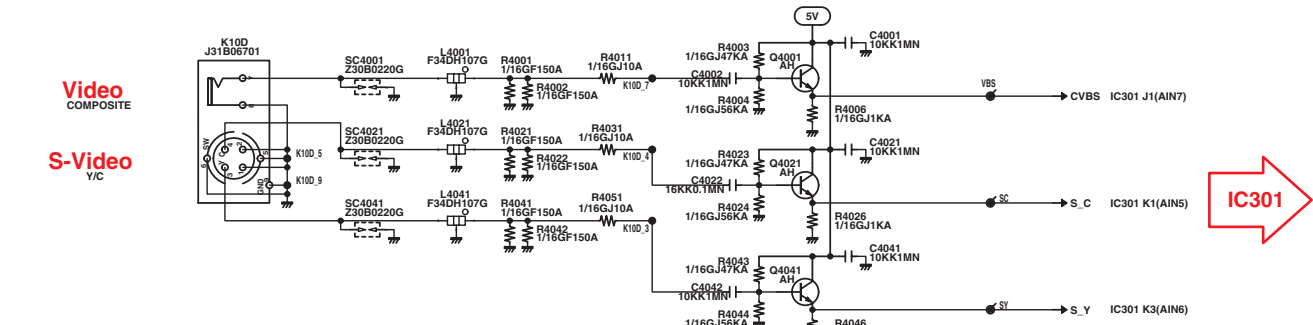
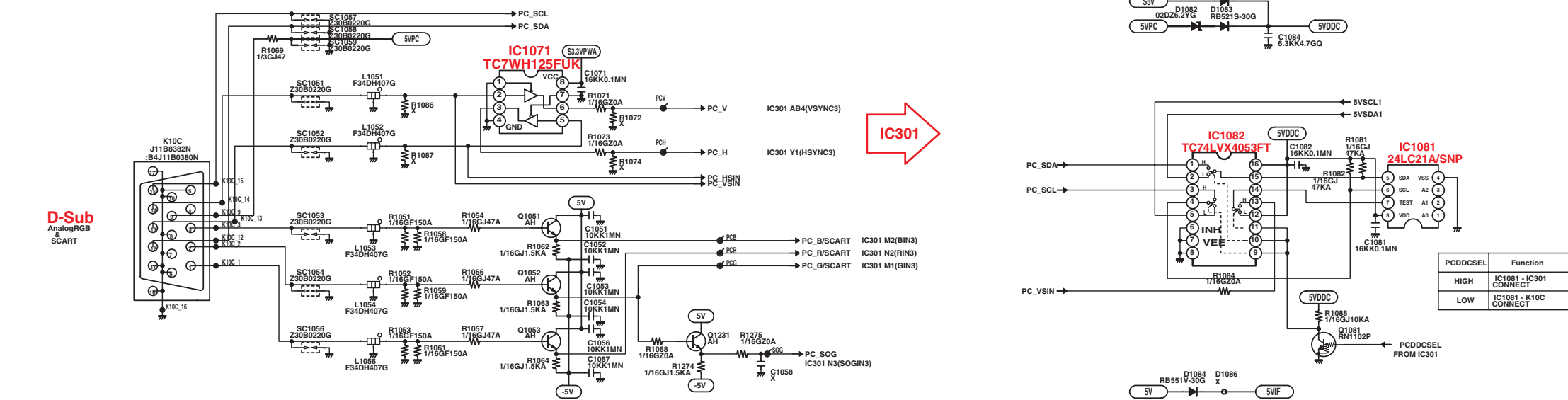
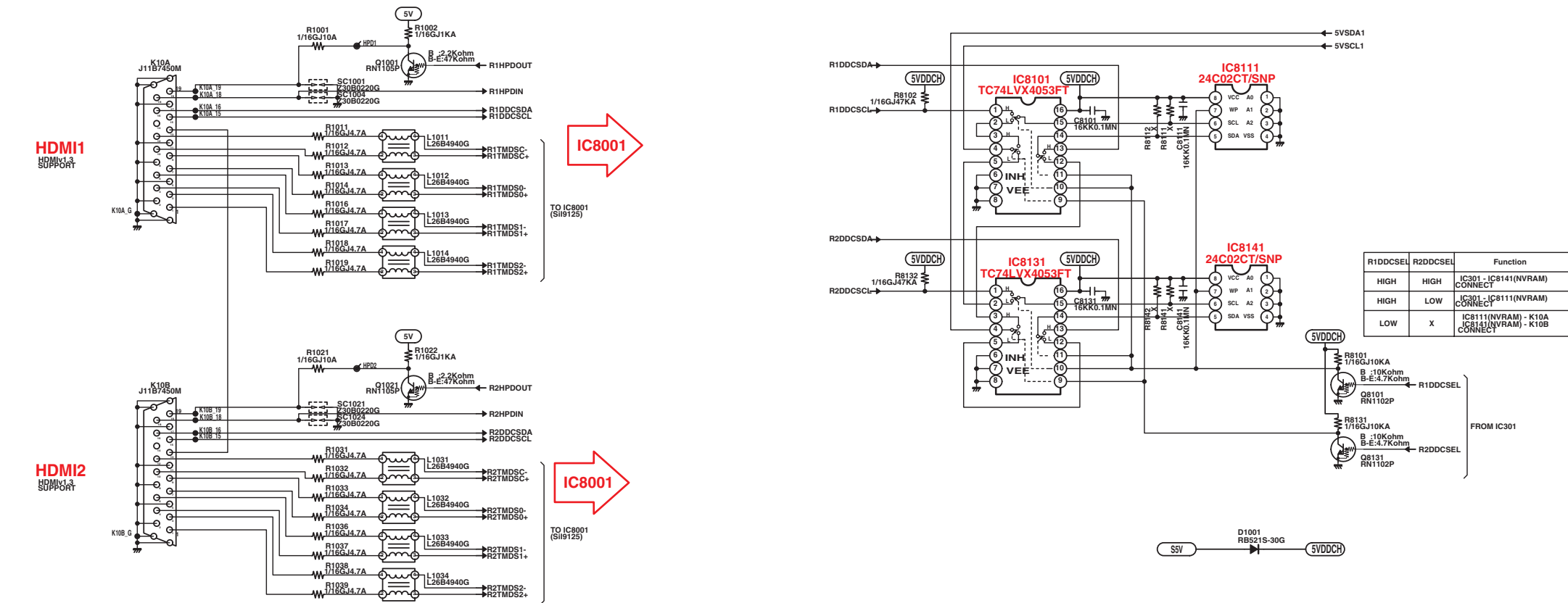
H

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A

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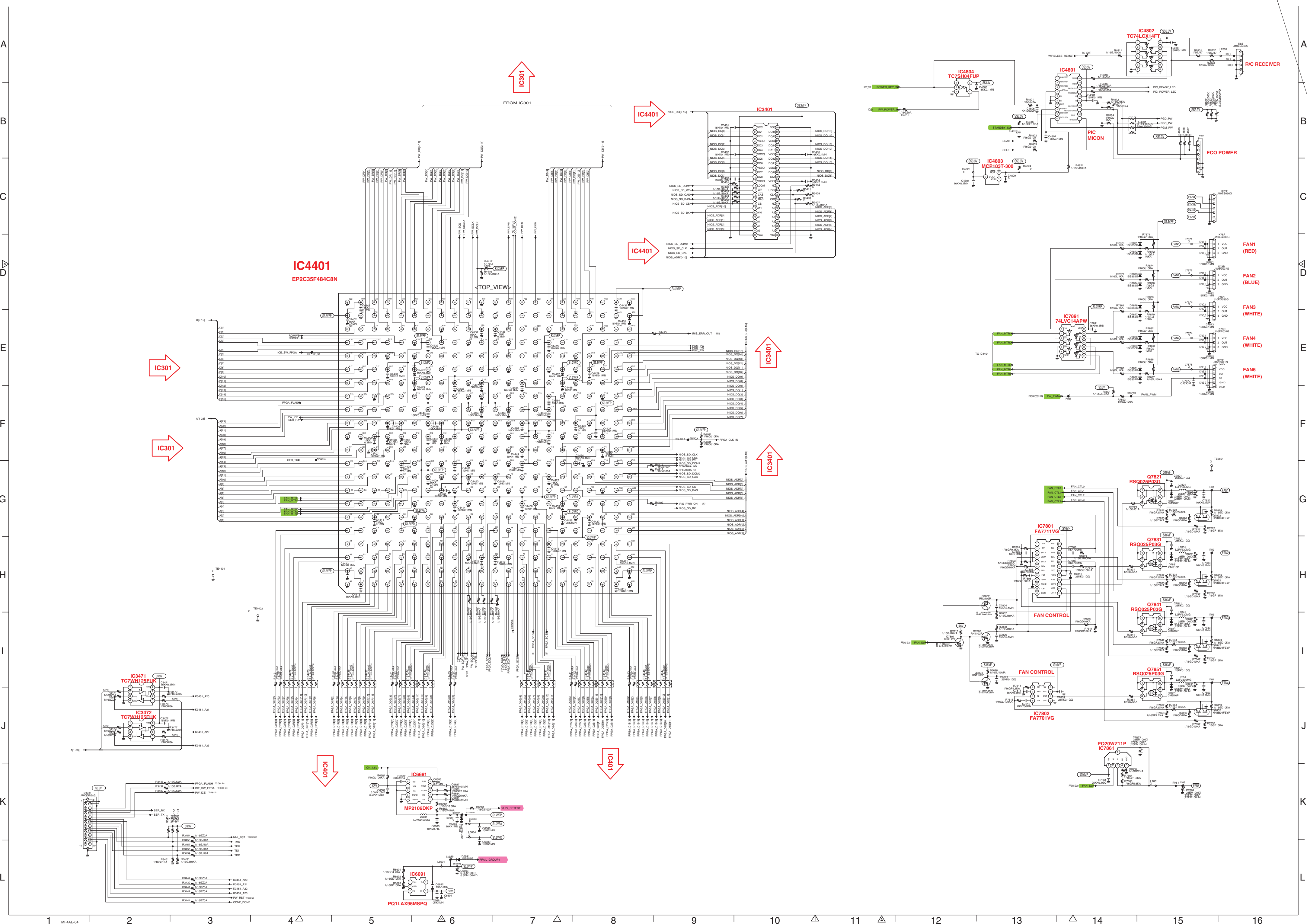
H

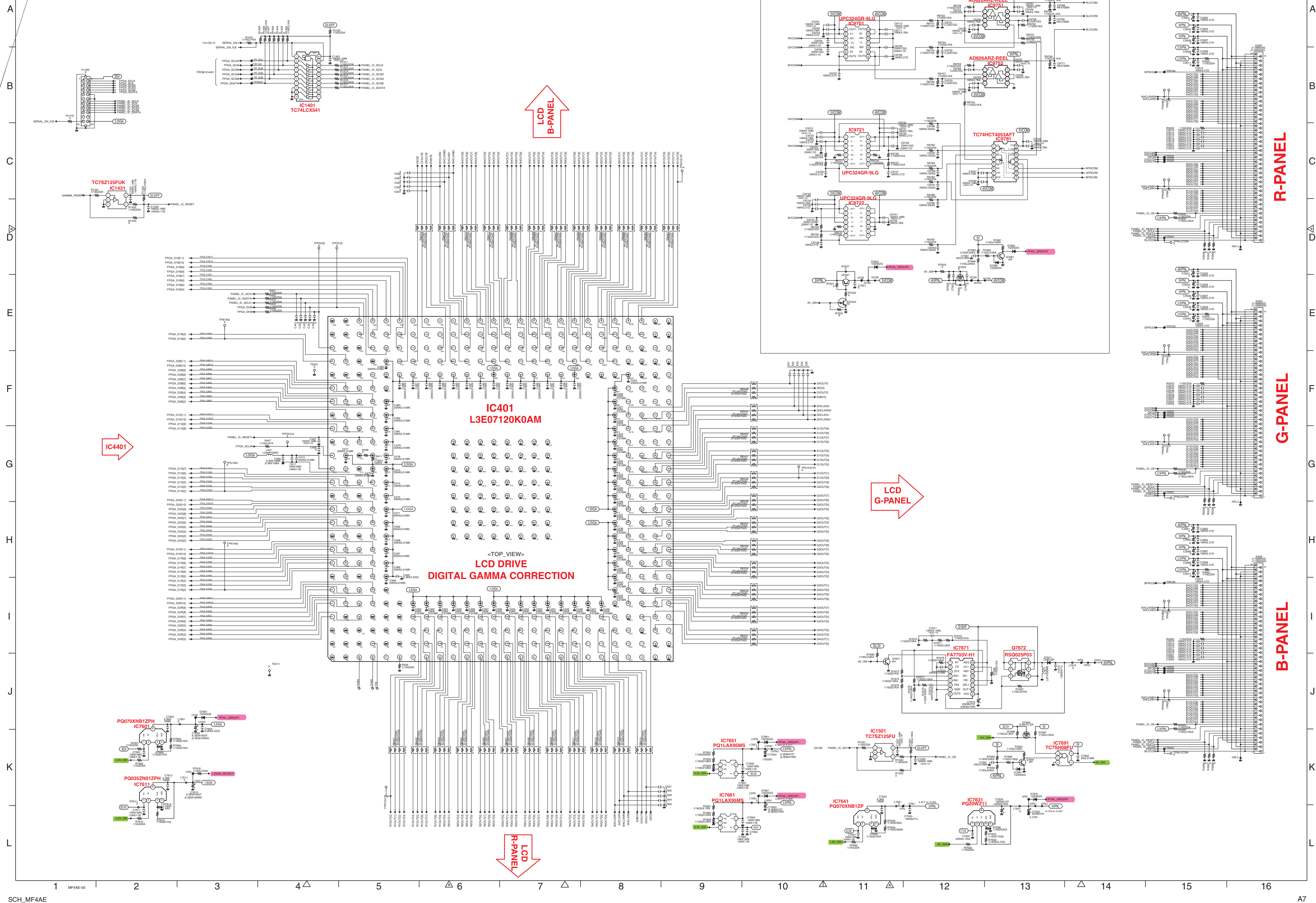
I

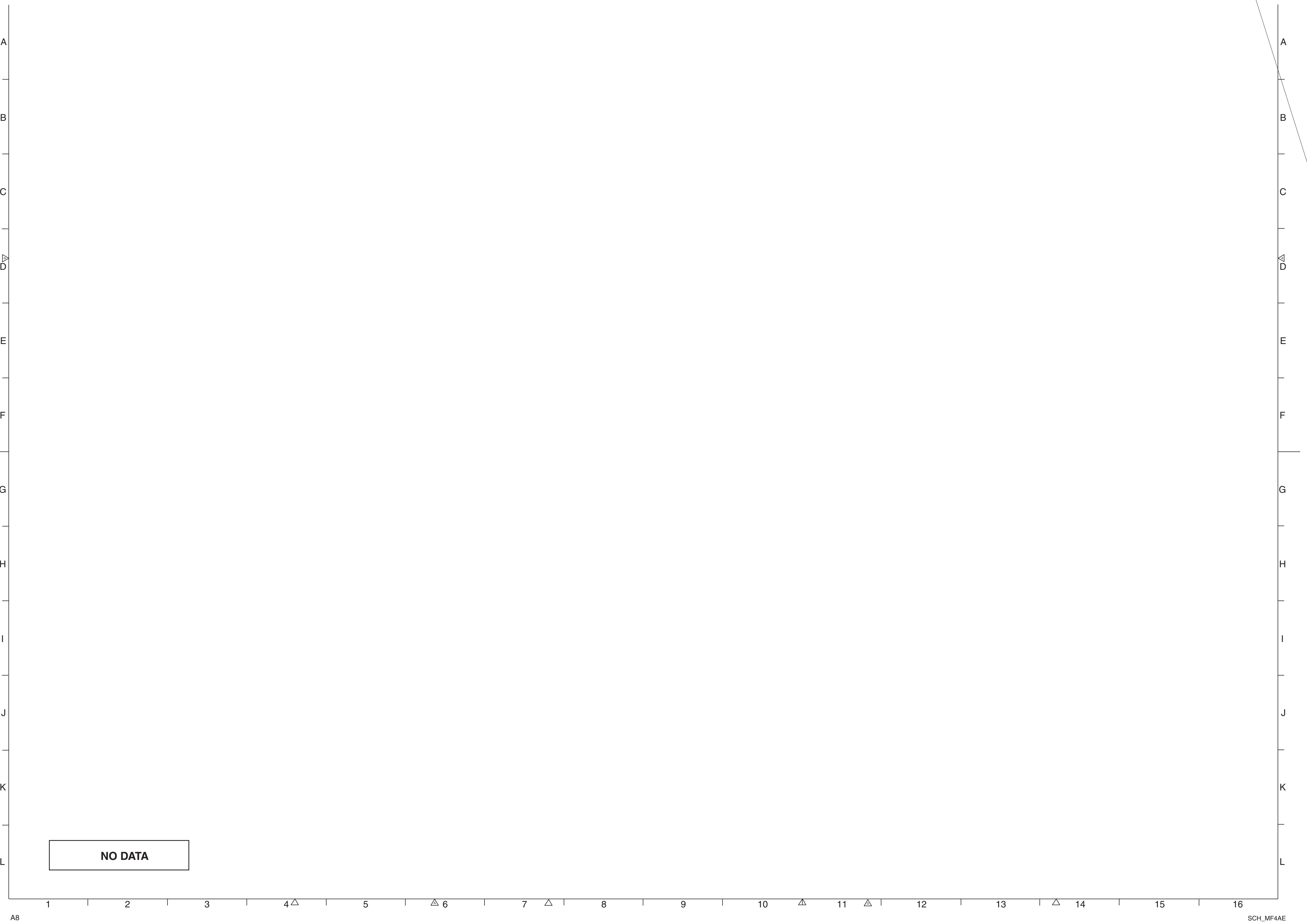
J

K

L







Printed Wiring Board Diagrams

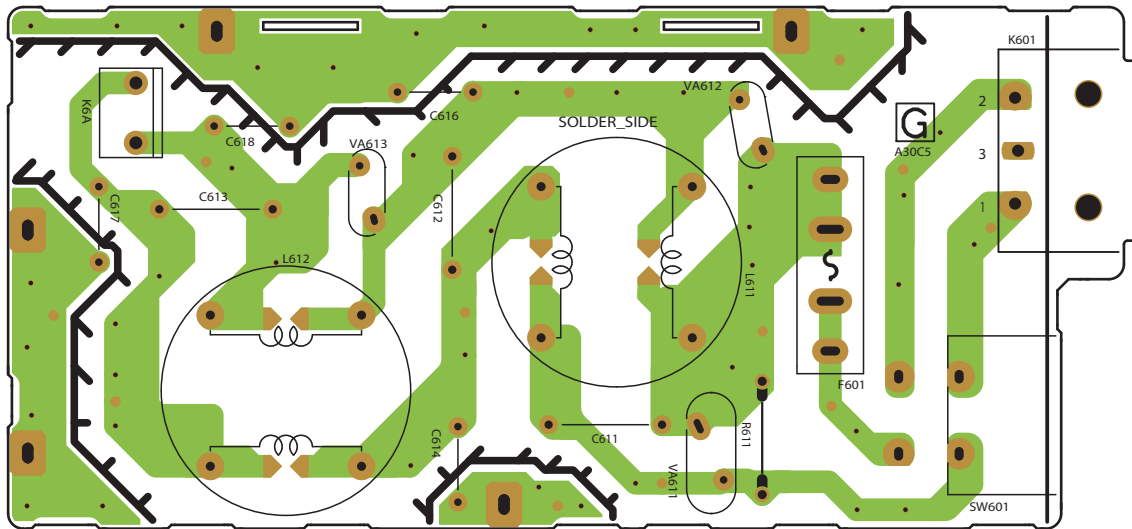
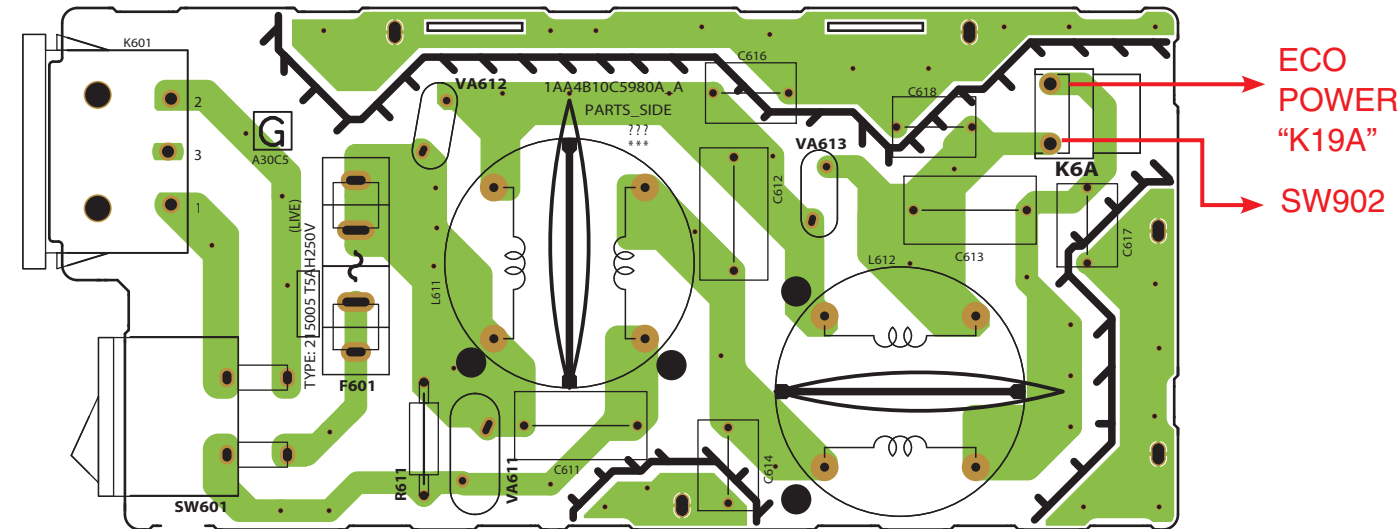
⚠ CAUTION

This projector is isolated from AC line by using the internal converter transformer. Please pay attention to the following notes in servicing

1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

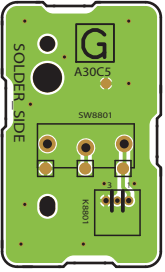
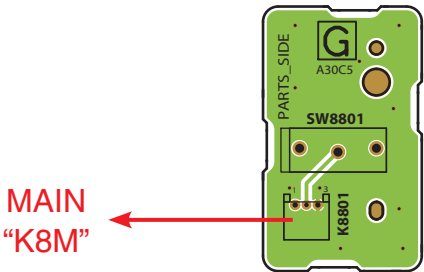
FILTER (SIDE: A)

FILTER (SIDE: B)



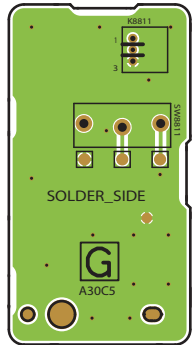
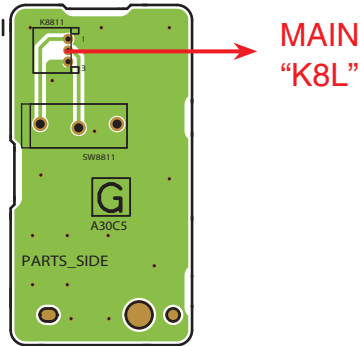
DOOR SW 1 (SIDE: A)

DOOR SW 1 (SIDE: B)



DOOR SW 2 (SIDE: A)

DOOR SW 2 (SIDE: B)



MAIN (SIDE: A)

DOOR SW2 DOOR SW1 DOOR
"K8811" "K8801" MOTOR

LAMP BALLAST “CN201”

ECO
POWER
"K19C"

➔ FN901

➔ FN902

► FN903

► TH901

► FN904

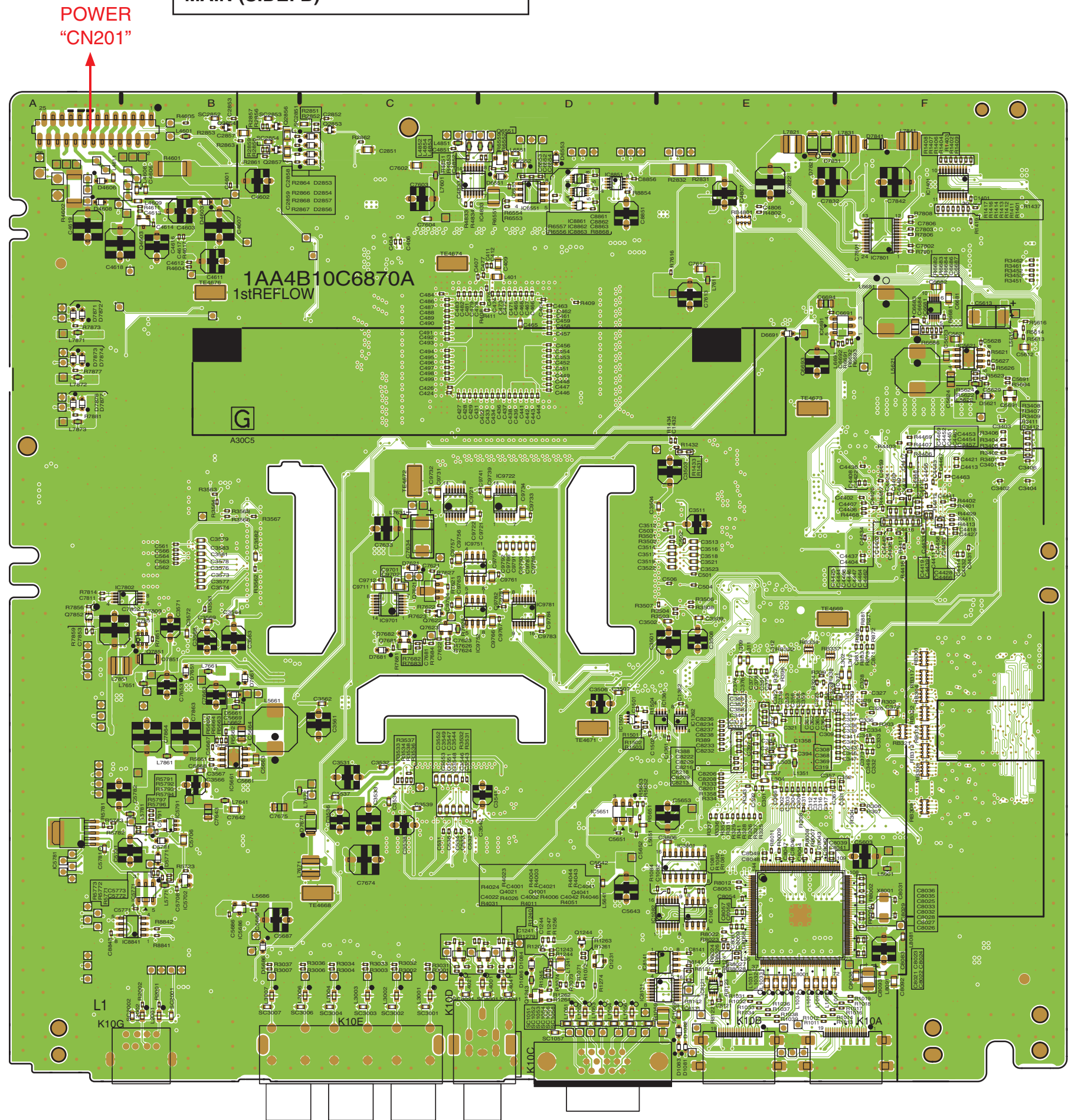
► FN905

LAMP
IRIS

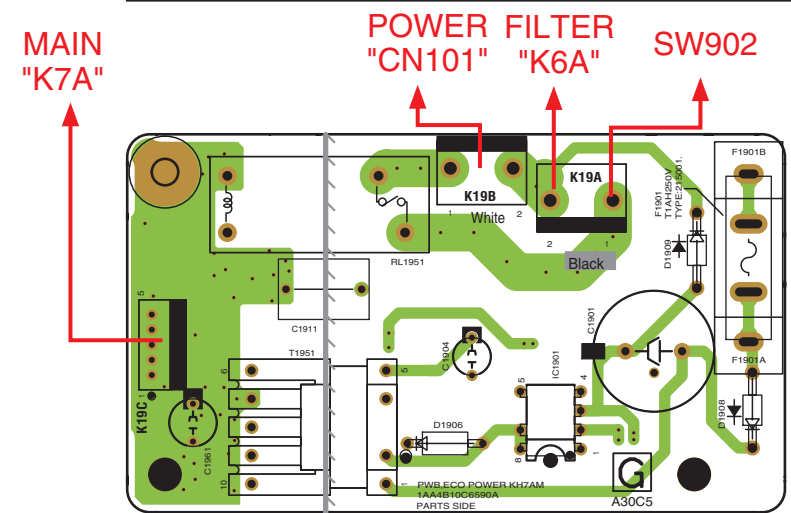
► TH902

LAMP
SWITCH
"K8803"

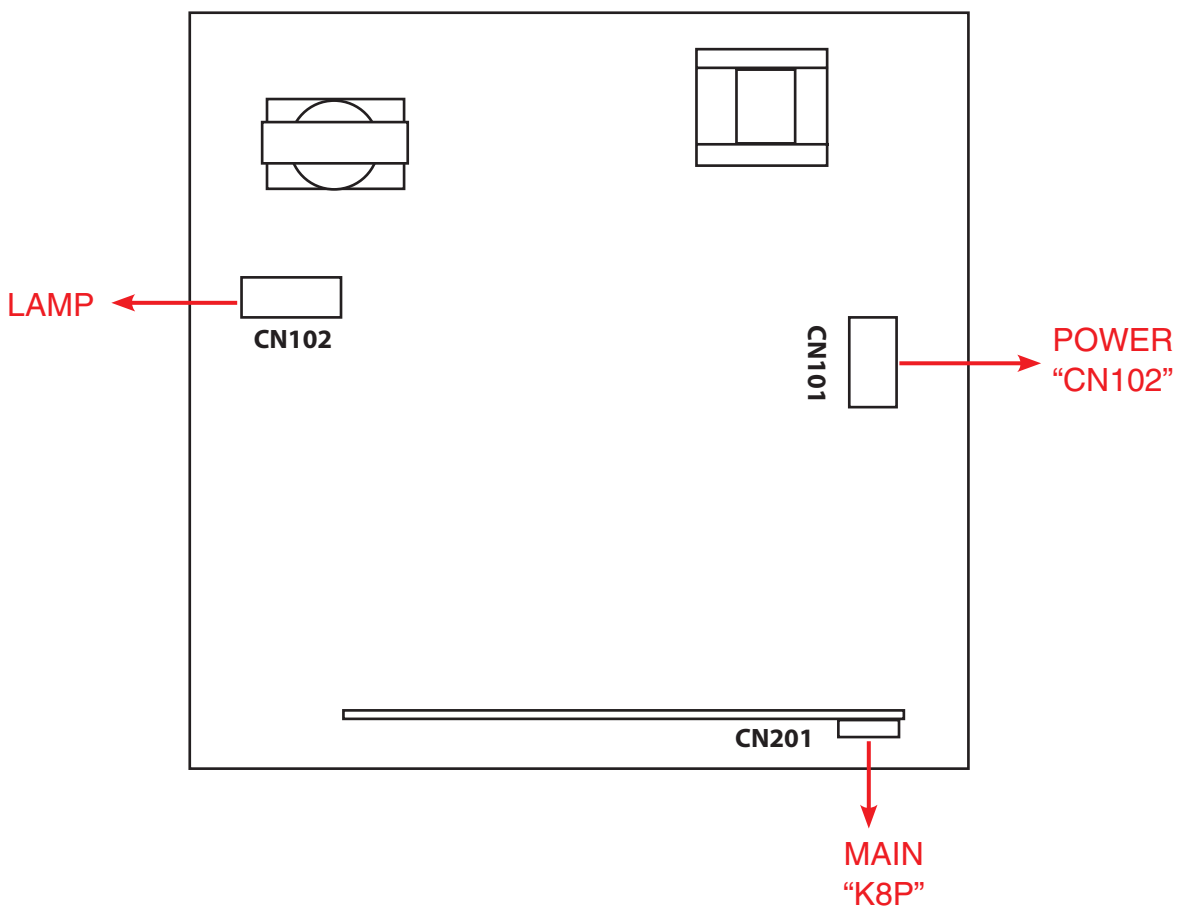
MAIN (SIDE: B)



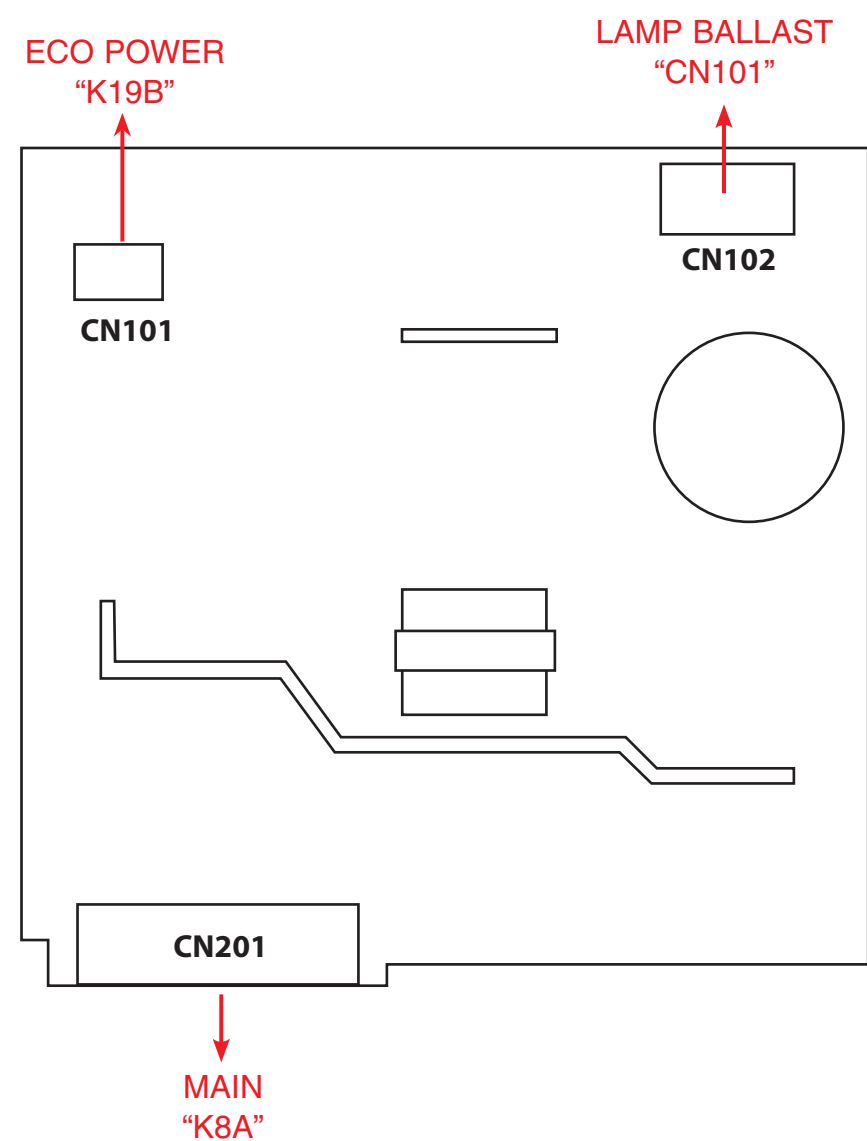
ECO POWER (SIDE: A)



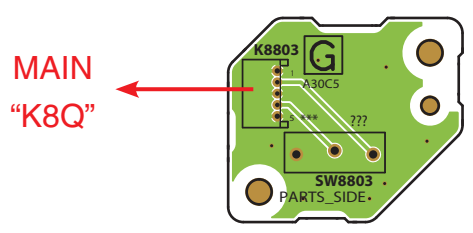
LAMP BALLAST (SIDE: A)



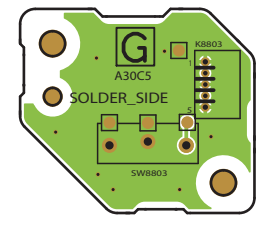
POWER (SIDE: A)



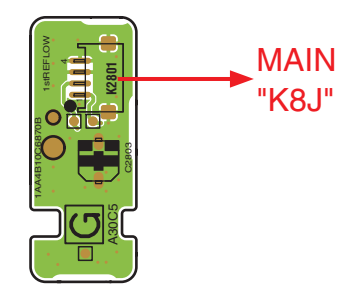
LAMP SWITCH (SIDE: A)



LAMP SW ITCH (SIDE: B)



R/C (SIDE: A)



R/C (SIDE: B)

